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Part I: Co-operation and Association

UNITED STATES.

THE ORDER OF PATRONS OF HUSBANDRY ("THE GRANGE").

II. — GRANGE WORK AND IDEALS AND THE LATER PROGRESS OF THE ORDER (1).

In the June number of the *Bulletin* we gave an account of the origin of the Patrons of Husbandry, known popularly as the Grange, and traced the somewhat chequered history of the Order from its foundation in 1867 down to the year 1880. We described how the National Grange was founded in Washington by a small group of Government employees led by Oliver Hudson Kelley, how it achieved in a few years an enormous popularity, which, as it was based for the most part on an entire misconception of the Order's ideals and aims, was largely unsound, and how, when the bubble of popularity burst after a brief existence, the Order collapsed, and was saved only because the founders and a small remnant of their followers remained faithful to the original aims. In 1880 the fortunes of the Grange were at a very low ebb, and many people were under the impression that the Order has ceased to exist. Other organisations, frankly political in character and appealing, therefore, much more strongly to the average American farmer, had taken its place in the public estimation. The Grange in fact really prepared the way for a powerful political movement in which the farmers played a prominent part. It was inevitable that the Order should disappoint the hopes of those who had planned to use it as a party organisation, and it is a most fortunate circumstance that shortly after 1875, it definitely won

(1) The material for this chapter has been collected in the main from the *National Grange Monthly* and from the *Journal of Proceedings of the Annual Session of the National Grange*, from 1904 to 1914. Chapter I of the article on the Grange ("Origin and Early History") appeared in the *Bulletin* for June, pp. 1-16.

Clear of the maelstrom of American politics. From that time onward the Order has confined itself to schemes of modest proportions connected, almost invariably, with some phase of the rural betterment movement. The important difference is, that whereas the high-flown schemes of earlier years failed clamorously, the later schemes of the Grange have been quietly successful; so that without attracting a great deal of public attention it has really done much for the development of social life in the country, for the extension of agricultural instruction and the promotion of education generally, and for the improvement of agriculture. In this chapter we wish to pass in review some of the work accomplished, or at least attempted, by the Grange in these various directions, beginning with some account of the influence of the Order upon the social life of the country districts.

§ 1. THE GRANGE AS A SOCIAL CENTRE.

There is good reason for considering first the social activity of the Grange. No problem, during the last decade, has occupied more attention in the United States than that of rural betterment, and students of the problem have been unanimous in paying tribute to the good work accomplished by the Grange in many districts in connection with the provision of wholesome recreation and amusement for the members of isolated or scattered communities. It is sometimes difficult for people who live in towns to realise precisely what is meant by an almost complete lack of opportunities for social intercourse, and those people are not likely to appreciate at its full value the work which the Grange has done to provide such opportunities. The truest appreciation of the work comes, in fact, from people who have spent their early life upon farms in the open country, and who know from bitter experience the dreariness of the long months of winter passed, by both young and old, practically without social relaxation of any kind. In towns where innumerable associations, societies and clubs exist, one more or one less is a matter of but momentary interest and no particular importance; but it is not so in the country where, apart from the Grange, there is too often no association, no organisation of any kind, which attempts to bring people together for mutual instruction or recreation.

We have already described the general organisation of the Order, but it will be advisable here to examine a little more closely the composition and methods of working of the local units, known as subordinate Granges. The principal officers in a subordinate Grange, — all elected by the vote of the members, men and women being equally eligible for all offices, — are, Master, Overseer, Lecturer, Steward, Secretary and Treasurer. The Grange meets in session probably once a fortnight or even once a week in winter, and once a month in summer when the farmers have less time to spare from their work. Very often a number of neighbouring Granges combine and hold a kind of joint session which as a rule lasts a full day and is a happy combination of business and pleasure. The morning

is usually occupied with the secret business of the Order, the principal business (it may be presumed) being the admission of members to the various "Degrees." The afternoon session is devoted to listening to addresses by various speakers, but is enlivened by music, singing and recitations, and where circumstances permit there is an evening entertainment in which amateur theatricals figure largely, though dancing, for some reason or other, seems generally to be taboo. Many of the Granges own well-built halls in which their meetings take place, and in many cases these Grange halls are admirably equipped to serve as convenient social centres. The Grange Hall in Wilmington, Mass., for instance, is a building erected in 1911 at a cost of six thousand dollars, and contains a main hall fitted with a gallery and stage for meetings and entertainments, two ante-rooms, men's room, dining-room, kitchen, storeroom and furnace-room. The main hall has seating accommodation for 425 persons and the whole building is lighted, heated and ventilated in such a way as to make it a most comfortable and attractive meeting-place. And Wilmington is by no means an exceptional case: it is just a typical instance of a successful local Grange, and as time goes on the number of Grange halls throughout the country is being steadily increased. It is easy to realise how much the possession of a permanent building designed to serve as headquarters contributes to the success of a local Grange. Almost from time immemorial the meeting place for the men folk in the country has been the village or cross-roads "store," to which the men naturally drifted in the evenings and on wet days in winter when work upon the fields was impossible. The store offered little in the way of accommodation and nothing in the way of recreation or amusement, so that upon the whole it was apt to become the resort of the shiftless and idle members of the community. Moreover, it was only the men who met in the store; the women had no common meeting-place, apart perhaps from the country church or chapel. The schoolhouse was used on occasion for community gatherings, generally of a political character, but the one-room schoolhouse of the type which is common throughout America is neither a commodious nor a cheerful meeting-place, and the conception of the rural school as a social centre is, besides, comparatively new. The Grange has sought uninterruptedly to develop the usefulness of the district school, and we shall have more to say about that part of its work presently.

With a comfortable hall in its own possession a local Grange is able to organise its activities and thus offer some inducement to the younger members of the community to join its ranks.

The fact that women take part in all the work of the Order on an equality with the men, makes of every meeting of the Grange something in the nature of a social function. At full day meetings of county or State Granges it is generally necessary to provide one or even two substantial meals for the members present and the work of catering falls naturally upon the women. A Grange hall usually boasts a well-equipped kitchen, and as the women bring the necessary supplies from their homes there is no difficulty in preparing meals even for a large number of persons. In the summer months the Grange arranges for its meetings to take place as far as possible

out of doors. Where there are a number of subordinate Granges in any district at a convenient driving distance from one another, it is the practice for each Grange in turn to act as host and invite the members of the neighbouring Granges to visit its headquarters. These meetings are usually purely social affairs, such business relating to the Order as may be transacted merely reminding those present that they have a common tie in their membership of a national organisation and serving each one as a plausible reason for spending a pleasant day in the company of friends. There is no need to dwell on the fact that such meetings are helpful in giving the farmers an opportunity to discuss their common problems and in disseminating information and instruction. The meetings are more than justified by the fact that they provide relaxation and give real pleasure, and there would probably be less preoccupation on account of the country-life problem if they were more common than they are.

The social activities of the Grange, moreover, are not confined only to its own meetings or limited to members of the Order. Every country community has its days of public holiday and rejoicing, whether they be national holidays or local festivals, and on such occasions the local Grange is usually active in organising the day's proceedings and providing entertainments. Some of the local festivals are organised with a keen eye to business and are intended to attract public attention to some special product of the district or to the general advantages which it offers. Naturally there is in that case an exhibition of agricultural and other produce, and Grange exhibits are here generally well to the fore.

The Grange, too, has in its time been one of the staunchest supporters of the Agricultural Fair which in many country districts was, and is still, one of the great events of the year. The Grange has set its face resolutely against some of the features which threatened to mar the Fair as a useful institution, and in particular against racing and its inevitable accompaniment, betting. To some extent also the Agricultural Fair has served its purpose and been superseded, and this, together with the fact that it had certain questionable features, probably explains why the Grange is now less enthusiastic in supporting it. This applies particularly to the big State Fairs where the tendency is for vulgar side-shows to become the real attraction. The Grange still promotes and in every way encourages the holding of small local or district agricultural exhibitions which are not open to the same objection.

§ 2. EDUCATIONAL WORK OF THE GRANGE.

The members of the Grange are pledged by the terms of the Declaration of Purposes to advance the cause of education by all just means within their power, and it is a matter of legitimate pride upon the part of the leaders that for nearly fifty years their Order has been prominent in supporting every movement which promised to contribute in any way and in any

degree to the advancement of education. And Grange members have taken a broad view of what constitutes education. They have done much to secure better teaching in rural schools as well as better school buildings; but in addition they have been largely instrumental in securing the development and extension of technical instruction (more particularly in agriculture), in organising courses of lectures, and in establishing local libraries and forming reading circles.

Much good educational work is carried on within the Order itself, as a part of the programme of the regular meetings. One of the most important officers in every Grange is the "Lecturer" whose duty, briefly summarised, is to arrange that something in the way of instruction — and if possible instruction combined with amusement — shall be arranged for each meeting of the members. The Lecturer has a free hand and therefore a wide choice. He usually succeeds in getting a competent person to give a short address on some subject, relating either to technical agriculture or, like "Rural Credit" for instance, intimately connected with agriculture as an industry. Usually the Lecturer himself is a good speaker and a man who keeps himself well-informed as to the progress of agriculture and well posted upon the questions of the day. It is a favourite device of his to organise a debate among the members, who thus acquire ideas and information from one another and, in addition, learn to express their thoughts with some fluency and point, — a matter of no small importance from the point of view of the education of the individual. The founders of the Grange were insistent in urging members to read, and in the early days large numbers of tracts and leaflets, handbooks, guides and manuals of parliamentary practice were distributed by the National Grange to the subordinate Granges. It will be remembered that the founders were men of considerable educational attainments and much native ability, who naturally saw clearly how much the farmers were handicapped by the meagre education which was then all they usually possessed. There is now much less need for the leaders of the National Grange to insist on the advantages of education. A fair education is much more easily obtainable, and much commoner now, than was the case fifty years ago; the farmers have access to a sufficiently large number of papers, periodicals and books; and the educational activities of the Order are now organised and directed rather by the State Granges, between which, in the matter of initiating schemes for the education and instruction of their members, there is a good deal of healthy rivalry. But the National Grange, nevertheless, continues to hold before the members of the Order the ideal of constant self-improvement. In the present year (1915) the central body has prepared and printed a handbook for the use of the Lecturers of subordinate Granges. The handbook discusses at considerable length the part which the Lecturer is intended to fill in the Grange organisation, and contains a great deal of material (in the way of lists of subjects for discussion, model programmes, lists of books, and suggestions for the formation of a library) intended to assist the Lecturers in carrying out their duties.

• The most recent development of the educational work of the Order is of exceptional interest. In 1912, the Massachusetts State Grange set aside

a small fund to be known as the Educational Aid Fund and to be devoted to making loans to young members of the Grange for the purpose of enabling them to continue their education beyond the limits of the ordinary public schools. Loans were made to 14 students in 1912, to 25 in 1913, and to 34 in 1914, making a total of 73 young people helped, the majority of whom without such help would probably never have received anything in the nature of a liberal education. Only a nominal rate of interest is charged upon the loans, and the students helped (who must be well recommended to the trustees of the Fund by the officers of the subordinate Grange to which they belong) are not expected to begin repayment until they have completed their training and are in receipt of a salary. The kind of education which is being promoted by loans from the Educational Aid Fund is by no means all of the same type. Of the students assisted in 1914, eleven are attending Massachusetts Agricultural College, eight are in business colleges, eight are in normal colleges, four are in universities, and two are attending technical high schools. One, even, is attending a school of oratory. The example of Massachusetts has already been followed by Connecticut, Missouri and California.

We have already mentioned that the Grange has consistently lent its support to schemes for providing better teaching and better equipment for rural schools. In the early days the enthusiasm of the members even led them to establish schools of their own, and between 1870 and 1880 Grange schools existed in Alabama, North Carolina, Louisiana and other southern States, and in Michigan. It was during the seventies, too, that the Grange was particularly active in securing the establishment of State universities and agricultural colleges. In more than one state, — in California and Ohio, for example, — the Grange carried out investigations, proved that agricultural education was being unfairly neglected (in some cases funds voted for agricultural education being diverted to other purposes), and was instrumental in bringing about important reforms.

§ 3. GRANGE CO-OPERATIVE ENTERPRISES.

The original Grange Declaration of Purposes, written nearly fifty years ago, contained the following clause: "For our business interest we desire to bring producers and consumers, farmers and manufacturers into the most direct and friendly relations possible. Hence, we must dispense with a surplus of middlemen, not that we are unfriendly to them, but we do not need them. Their surplus and their exactions diminish our profits."

Very early in its history, the Grange tried to bring farmers and manufacturers into the most direct relations possible. Unfortunately the direct relations were not always as friendly as the Grange leaders had hoped. The State Granges appointed purchasing agents to deal directly with the manufacturers; but the agents were often untrained and occasionally dishonest, so that neither the Patrons nor the manufacturers derived the full benefit

of the scheme. Another device, employed very often by the Grange in its brief but glorious period of wide popularity, proved even less satisfactory. This was the practice of buying from manufacturers or wholesale dealers on the basis of confidential price-lists in which the quoted prices were appreciably lower than the current prices paid by the public. • Inevitably this method of doing business led to endless friction, as the other buyers sooner or later became informed as to the existence of the special price-list.

But the Grange engaged also in much more elaborate forms of co-operative enterprise in the palmy days of its prosperity, and it will be remembered that the widespread failure of its co-operative schemes was the principal cause of the sudden decline of the Order after 1874. Apparently at that time disaster made a clean sweep of Grange co-operation and the co-operative enterprises of the Order which exist at the present day are practically all of much more recent origin. One writer (1) states that in 1911 there was still in existence a wholesale firm — the Patrons' Co-operative Corporation of Portland, Maine, — which was founded in 1877, and a small Grange store in North Jay, dating from the 70's. It is quite possible that there may be other interesting survivals of early Grange co-operation, but it is doubtful whether co-operative management has been continuous even in these few cases.

It is difficult matter to establish with any precision when the Grange again took up co-operation as an important part of its programme and began actively to initiate co-operative schemes relating for the most part to the purchase and distribution of farm supplies. The Grange itself has apparently never attempted to take a census of the co-operative enterprises promoted by its own members, and such information relating to them as is obtainable is of the vaguest kind. The explanation is probably to be found in the fact that many of the existing enterprises, while really Grange schemes, are not officially connected with the Order: they are managed by members for the benefit of members, but no Grange organisation has any responsibility in connection with them. This is the lesson which the Grangers have learnt from the history of Grange co-operation between 1870 and 1880.

Some information as to present day co-operation within the Grange is contained in Ford's *Co-operation in New England* and may here be briefly summarised. In 1908, the so-called "trade discount system," under which Grange members were granted special discounts on their purchases, was in use in Rhode Island. In that year the Grange leaders had made arrangements with seventeen retail dealers in the State and the Grange members by confining their purchases to these firms were able to save from 5 to 10 per cent. on implements, hardware, paints, oils, boots and shoes and other farm and household supplies.

The same purchasing system was in use in Connecticut for many years, but it proved unsatisfactory and was abandoned about 1904. The system is used in a modified form by some of the Massachusetts Granges. In the

(1) FORD, J.: *Co-operation in New England*. (New York, 1913) at pp 95 and 103.

Granges in question the members deal with certain selected firms, but pay current prices and take a receipt for each payment. These receipts are handed to an agent of the Grange and twice a year the agent presents them to the respective firms and receives a certain rebate agreed upon beforehand. It is the duty of the agent to prevent any abuse of the system upon the part either of the Patrons or of the dealers.

There is really very little which can be described as co-operation in any system of discounts or rebates from ordinary dealers to members of the Grange. In return for a monopoly in supplying a certain clientele the dealer makes some reduction in prices, but the buyers have no interest in and no control of any kind over the business which supplies them.

Grange efforts, however, do not stop at the discount system. Genuine co-operative purchasing associations are fairly common in New England Granges, — especially in Vermont, New Hampshire and Maine, where industrial centres are remote. One such association in Rhode Island, organised by the Middleton Grange and selling fertilisers to non-members as well as members, does a very successful business and is able to effect a saving to members of \$ 5 a ton. In a year of good trade the association buys and distributes 400 tons of fertiliser. Another branch of co-operative enterprise fairly well represented in New England is the co-operative distributive store. The largest Grange store is that of Houlton, Maine, which was founded in 1893, and in 1910 had a membership of 1,018. This store in the year 1909-10 did a total business of \$ 166,857. In 1911, there were at least nine other Grange co-operative stores in Maine. The success of some of the local co-operative associations led the Massachusetts State Grange to embark upon a larger scheme. In October, 1908, the State Grange began in a tentative way to act as the central supply agency of the local Grange. The first order placed was for 465 barrels of flour which were supplied to 47 local Granges at a saving of just over \$ 1.00 per barrel. The second order was for 546 tons of grain, and the third for 30 tons of fertilizer. The total saving to Grange members on these three transactions was \$ 2,200, and this initial success induced the Massachusetts Patrons at the annual meeting of their State Grange to form the "Patrons' Co-operative Association" with an authorised capital of \$25,000 in five-dollar shares. The Association was founded by Grange members for Grange members but it had no legal connection with the Order, which, therefore, incurred no financial liability in connection with the scheme. For a time the Association seemed to be remarkably successful, and Connecticut, Vermont, Maine and New Hampshire followed the example of Massachusetts and formed State associations for co-operative purchase. Yet in 1911 the Massachusetts Association was dissolved, the Patrons after failing properly to support it becoming dissatisfied with the service it provided. History seems to have repeated itself quite unnecessarily on this occasion, for the reasons adduced for the failure of the scheme are all very familiar. The promised capital was not paid in full (\$4,000 was subscribed out of \$25,000 and it was found impossible later to get the shareholders to subscribe more), the first choice of manager was unfortunate, and there were irritating delays in filling certain orders. On the dissolution of the Associ-

ation the trade which it had been doing was distributed among the purchasing associations of neighbouring State Granges.

One branch of co-operation, — and the one which, perhaps, has been most successfully developed by the Grange, — has still to be mentioned, namely, co-operative fire insurance. Farmers' co-operative (or mutual) fire insurance associations are numerous in the states of the Mississippi Valley and the Middle West, and the opportunity of obtaining fire insurance at a low cost is in some states one of the strongest attractions which the Grange has to offer. Grange fire insurance has been very successful in Kansas where the Patrons' Fire and Tornado Association does business throughout the whole of the State. The Association was founded in 1889 and so far has proved continuously and increasingly successful. In 1907, the risks covered amounted to \$ 6,000,000. Five years later, in 1912, the amount had increased to \$ 16,000,000. During the year 1911, the association paid 180 claims amounting in all to \$ 30,000. In 1912, business always increasing, the Association built for itself new office buildings in the town of Olathe.

In the same town are situated the offices of the Patrons' Bank of Kansas founded as far back as 1883 with an authorised capital of \$ 75,000 of which \$ 37,500 was paid up. A later banking law in Kansas required that the capital should be paid up in full, and the Bank was reorganised with a capital of \$ 50,000. As originally constituted, it was strictly co-operative, but the requirements of the new banking law made it necessary to eliminate some of the co-operative features. Even so, however, voting is still democratic, each shareholder having one vote only upon any question. No shareholder may hold more than ten shares, and only Grange members may be shareholders. The Bank, however does not limit itself to doing business with Grange members but does an ordinary banking business with the general public, and of the Bank's depositors only about 50 per cent. are members of the Grange.

The Patrons' Bank of Kansas seems to be the only one of its kind, and the Patrons themselves do not claim that it is, in the strict sense of the term, a co-operative credit institution; but it is at least a striking example of what can be accomplished by organised effort, and it is our object here to show how largely the Grange contributes to the effective organisation of American farmers.

§ 4. THE EXTENSION OF THE ORDER.

It has been noted in our first chapter how the year 1874 marks the culminating point in the progress of the Grange in numbers and in prosperity. At the end of that year there were well over twenty-one thousand Granges in the United States and the number of members was not less than 750,000. By 1880, the number of Granges had fallen to about four thousand and the membership was probably not more than 150,000. Those

Who remained faithful to the Order, however, were men and women of the right stamp, who believed firmly in the Grange ideals of mutual help, mutual instruction and organised effort for the betterment of rural life. The Grange after 1880 took up, one by one, its real tasks, and slowly but steadily it won its way back into public notice and esteem. The number of members increased slowly, but the increase was sound. For many years it was rather that the members sought the Grange than that the Grange sought the members. There has been, naturally, ebb and flow in its fortunes; it has at times attracted a good deal of public attention by its support of certain measures, or by its opposition to others, while at times it has remained for considerable periods in comparative obscurity. Again, the personal element has much to do with the activity of the Order, and the question whether the Grange shall languish or shall progress in a particular State depends very largely upon the character and organising ability of the State Master who happens to be in office. For many years after 1880 the National Grange made no special effort to extend the Order, although the higher officers showed themselves as a rule active in stimulating interest in Grange affairs among the members themselves. It was not, indeed, until 1910 that the National Grange, considering the moment opportune, decided to adopt a more active policy with regard to propaganda. At the annual sessions of the National Grange, held in that year at Atlantic City, New Jersey, it was decided to devote, out of the general funds, amounts not exceeding in any single case \$2,000, for the purpose of extending the Order in each State entitled to representation in the annual session, and a sum not exceeding \$5,000 for the purpose of extending the Order in States not entitled to representation, provided, however, that the total expenditure should not be so great as to reduce the permanent investment of the National Grange below \$100,000. The same provision for extension work was made at succeeding sessions of the National Grange and the amounts expended in the four years 1911 to 1914 were \$16,900, \$17,000, \$14,500 and \$12,000, respectively. In 1913 and 1914 the amount spent on extension work had to be curtailed in order that the general fund of the Order might not be reduced below the established limit of \$100,000. The special effort made to extend the Order met with considerable success, and between 1911 and 1914 many new Granges were organised. Between October 1st, 1913, and September 30th, 1914, the number of Granges organised was 490, the highest number organised in any one year since 1874. In the same year (1913-14) the annual dues, upon the basis of membership, paid into the National Grange by the various States, amounted to \$25,764. It has already been mentioned that these dues amounted, in 1875, to more than forty-three thousand dollars, and had fallen, in 1880, to just over six thousand. Unfortunately no comparison as to number of members can be drawn from these figures, as the annual dues appear to have been levied at different rates at various times.

It is difficult to obtain anything like complete and accurate statistics of Grange membership. In *Co-operation in New England*, the number of members in the New England States in 1911 is given as follows: Maine

60,000, New Hampshire 30,000, Vermont 20,000, Massachusetts 27,000, Connecticut 12,000, Rhode Island 2,500. From the *Journal of Proceedings of the Forty-sixth Annual Session of the National Grange* (Spokane, Washington, 1912) we learn the membership of the Grange in four of the States in 1912: Iowa 3,722, Kansas 10,229, Ohio 42,179, Oregon 10,700. In the *National Grange Monthly* of August, 1914, it is stated that, in 1914, New York had a membership of 110,000: Philadelphia of 70,000 and Michigan of 50,000. According to the same authority the total membership of the Order in 1914 was "something approaching a million and a half," an estimate which (we may take it) errs rather on the side of generosity. Whatever the real figures as to membership may be, — and they are probably considerably lower than the million and a half of the *National Grange Monthly*, — the fact remains that the Grange is still the largest purely agricultural organisation in the United States, if not, indeed, in any country in the world.

JAPAN.

TWO GREAT AGRICULTURAL SOCIETIES.

By TAKEO ONO of the Imperial Agricultural Association of Japan.

There are two great agricultural organisations in Japan, one — the Agricultural Society of Japan (*Dai-Nippon Nokai*) — a private society, the other — the Imperial Agricultural Association (*Teikoku Nokai*) — a public institution.

The former is organized by over ten thousand members who are interested in agriculture, while the latter is established under the Law on Agricultural Societies and is composed of 46 prefectural agricultural societies. It must be remembered in this connection that each prefectural agricultural society is composed of district agricultural societies, that each district agricultural societies is composed of town and village agricultural societies, and that each town and village agricultural society is organized by local farmers. Thus there are four grades in the public agricultural institute of Japan.

I shall give a brief historical sketch of the development, organization and working of both organizations.

§ I. THE AGRICULTURAL SOCIETY OF JAPAN.

(*Dai-Nippon Nokai*).

The Agricultural Society of Japan came into existence in 1881, but the project for organizing it had been under contemplation for years before. The late Marquis Okubo, then Minister of Home Affairs, took a deep interest in agriculture. On the occasion of his visit to Europe and America he made many useful investigations into productive industries, especially into western agriculture. Soon after his return from abroad, he established the Mita Seed Farm, and later managed to open several markets for agricultural produce with a view to supplying good seed and facilitating dealings in agricultural produce. The Marquis, not satisfied with these few institutions intended to establish a large agricultural society. His plan, however, was nipped in the bud owing to his untimely death in 1878. But his friends and followers endeavoured to realize his cherished desire. As

a result, they established in the spring of next year the Tokyo Farmers' Society and called monthly meetings to discuss the development of agriculture.

Availing of the occasion of the Second National Exposition which was held in Tokyo in 1881, the Government summoned several hundred leading farmers from every part of the country. These farmers, assembled in Tokyo in response to the invitation of the Government, held their meeting at the Honganji Temple at Asakusa and unanimously passed a resolution that the Tokyo Farmers' Society should be amalgamated to the *Toyo-Nokai* (Oriental Agricultural Society) a farmers' society having its office in the Shimoosa Imperial Pasture, and that the Agricultural Society of Japan (*Dai-Nippon Nokai*) should be the name of the newly created society. The large private agricultural society came into existence for the first time in this way. In the following year the Imperial Household Department granted a sum of one thousand *yen* toward the funds of the society. The Department of Agriculture and Commerce, on the other hand, made occasional subsidies in order to assist the various works planned by the society.

The most important work conducted by the Society must be said to be the Tokyo Agricultural University. This institution was established in 1897 under the name of Tokyo Agricultural School, and subsequently, in 1911, it was converted into a University. More than one thousand graduates have been turned out from the university, while about seven hundred students are now studying there.

Under the Imperial encouragement given in the form of money grants and the Government subsidies, the Agricultural Society of Japan, ever since its establishment, has been making a great contribution to the development of agriculture.

The Society at present is acting under the patronage of H. H. Prince Fushimi as its Honorary President and Marquis Y. Matsudaira as its President, with Viscount Y. Mishima and Dr. Y. Yokoi as its Vice-Presidents. The Technical Committee consists exclusively of men well versed in agricultural science.

The members of the Society are classified into (1) Honorary, (2) Special, (3) Ordinary, (4) Subscribing (*Sansei Kwaiin*).

To describe the membership more definitely:

Honorary Advisors are chosen by the Standing Board of Trustees from among those who are well qualified and have rendered special services to the Society.

Honorary Members are nominated by the Honorary President from among those who have special qualifications or who have rendered services to agriculture or else to the Society.

Special Members are those who have the right of voting and who pay an annual fee of *yen* 2.40.

Ordinary Members are those who pay a fee of *Yen* 1.80 a year, while Subscribing Members, are those who, once for all, contribute *yen* 3.00 *oro ver.*

Neither Ordinary nor Subscribing members have the right of voting.

Besides the management of the Tokyo Agricultural University, which I have mentioned above, the Society is carrying out the following programme:

- (1) Publishing the monthly *Report of the Agricultural Society of Japan*.
- (2) Circulating pamphlets on agriculture;
- (3) Making researches on rural economy and answering to the questions put by the members;
- (4) Holding meetings for the purpose of discussing agricultural education;
- (5) Delivering lectures for military men;
- (6) Collecting miscellaneous information with regard to agriculture through correspondents appointed by the Society;
- (7) Giving the Society's medals, to those who have rendered meritorious services to the development of agriculture;
- (8) Organising itinerant lectureships;
- (9) Organising travelling exhibitions;
- (10) Holding an annual exhibition of farm products in Tokyo;
- (11) Supplying good seeds and young plants to farmers;
- (12) Showing useful books and agricultural specimens in the office of the Society;
- (13) Analysing soil and fertilizers in compliance with the application presented by the members of the Society;
- (14) Criticising new methods in agriculture;
- (15) Examining newly invented agricultural implements and machines.

§ 2. THE IMPERIAL AGRICULTURAL ASSOCIATION OF JAPAN.

(*Teikoku Nokai*).

The Imperial Agricultural Association of Japan was established in 1910 under the Law on Agricultural Societies. Prior to the establishment of this association, there was an agricultural society called *Zenkoku Noji-Kai* (Agricultural Society of the Japanese Empire), which had been carrying out various works in the common interest of farmers. But this society being entirely private, and no control being placed upon it by law, could devote itself to the work more freely than is now possible. The principal undertaking of the society was engaging in political movements in the interest of agriculturists and publishing a monthly journal. One who rendered distinguished services in connection with the establishment and development of the society was Mr. Maeda, now member of the House of Peers. We have another nobleman who has rendered great service to this society and later for the Imperial Agricultural Association of Japan, in the person of Viscount H. Kano, formerly Lord of Ishinomiya, clan of Kadzusa Province. The Imperial Agricultural Association of Japan owes its present prosperity and solidity to these two public spirited men. About 20 years ago Mr. Maeda made

lecturing tours throughout the country encouraging and persuading farmers to combine and establish a great agricultural society. From that time onward Japanese farmers have gradually become interested and have begun to realise their own importance to the nation. In 1884, the Central Agricultural Society was established at the instances of Mr. Maeda, and started various works. For a few years after the establishment of this society, all the works now conducted by the Sericultural Association of Japan and the Central Organisation of Co-operative Societies, were under the management of that society. The Central Agricultural Society held, as a rule, a mass meeting every year in Tokyo and called representatives from each prefectural district and submitted various questions to discussion. Besides this annual meeting, the society held local farmers' meetings in various parts of the country and discussed miscellaneous questions. It is not too much to say that those agrarian movements were practically under leadership of Mr. Maeda.

The Law on Agricultural Societies was promulgated in 1889, and prefectural district and town and village agricultural societies were established according to this law. But there was not yet any regulation in this law providing for a central organ. Therefore, the Central Agricultural Society, though it was not a public institution, had been making the part of a central organ with the support of the prefectural agricultural societies.

In 1910, however, the Government revised the Law on Agricultural Societies creating the *Teikoku Nokai* (Imperial Agricultural Association) in the first section of the law, and having duly obtained the approval of the Imperial Diet, the public central agricultural association came into being that year. Upon the establishment of the *Teikoku Nokai*, the *Zenkoku Nojikai* was dissolved after many years services for the welfare of the Japanese farmers.

I have already mentioned at the beginning of this article that the Imperial Agricultural Association is composed of 46 prefectural agricultural societies. The chief functions of the Association as laid down in its statute are:

- (1) To answer any questions put by the Government ;
- (2) To bring forward representations to the Government for the benefit of agriculturists ;
- (3) To make researches into matters concerning rural economy and agricultural politics ;
- (4) To publish monthly the *Bulletin of the Imperial Agricultural Association*.

The official Board of the Association consists of a President, Vice-President, fifteen Councillors and two Secretaries. The present President is Marquis Y. Matsudaira and the Vice-President is Dr. K. Kuwada, member of the House of Peers. The members of the Association are classified into two kinds, ordinary members and special members. Ordinary representatives are to be elected every three years from each prefectural district, while special representatives are to be appointed every three years by the Minister of Agriculture and Commerce. Besides these, the Association

can recommend honorary members and advisers from those who are well versed in agricultural economy and politics. The present honorary members are Marquis Y. Matsudaira, Viscount Oura, Minister of Home Affairs, Viscount H. Kano, ex president of the Association, and Mr. Maeda, member of the House of Peers. The present advisers are Mr. C. Shimocka, Vice Minister of Home Affairs and Mr. T. Tokonami, ex-president of the Imperial Railway Board.

The annual income of the Association consists of the Government grants and of the levy imposed upon prefectural agricultural societies. The budget of the Association is submitted to the discussion of the annual conference. The annual conference takes up for discussion not only the question of budget, but also bills proposed either by the representatives or by the official board of the Association.

One of the most important resolutions passed at the last session of the annual conference, held for three days beginning on the 7th October, 1914, was addressed to Government expressing the desire of the association for an adjustment of the price of rice with a view to relieving the farmers. This resolution aroused criticism everywhere in political circles and became one of the burning questions in the Imperial Diet. Some members of the House of Representatives put questions regarding the regulation of the price of rice in the Lower House, while some others brought forward representations on the same question, without regard to the party to which they belonged. Listening to these questions and representations, the Government at last issued an Imperial Ordinance authorizing the purchase and sale of rice on Government account with the object of regulating the price. This measure proved very effective and the price rose three *yen* per *koku* in a short period of time. The farmers who had long been suffering from the low price of rice, were relieved by this measure from further difficulty. Thus the farmers' desire for regulating the price of rice, which is the staple food of the Japanese, was realised, to the great relief not only of them but also of merchants and manufacturers throughout the country.

RUSSIA.

PROGRESS OF CO-OPERATION IN FINLAND BETWEEN 1909 AND 1915 AND THE PRESENT SITUATION.

(Continued).

§ 5. CO-OPERATIVE SOCIETIES FOR PRODUCTION AND SALE.

In the statistical returns of the "Pellervo" the following eight categories of Finnish co-operative societies were considered as coming under this head: (1) co-operative dairies, or rather butter making societies, (2) co-operative societies for the sale of milk, (3) co-operative societies for sale of livestock and meat, (4) co-operative societies for poultry improvement and the sale of eggs, (5) co-operative societies for the sale of grain and co-operative mills, (6) co-operative societies for cutting wood in forests and co-operative saw-mills, (7) co-operative societies for fishing and the sale of fish, (8) miscellaneous co-operative societies for production and sale.

(a) *Co-operative Dairies, or rather Butter Making Societies.*

As we have seen, in the Finnish statistical returns a sharp distinction is made between "co-operative dairies" and co-operative societies for the sale of milk." The reason for this distinction is the great importance the production of butter for export, especially to the English market, has assumed, now exceeding 13,000,000 kg. per ann., and representing a value of more than 40,000,000 marks. Owing to the progress made by this industry most of the co-operative dairies concentrate their attention on the production of butter for exportation, to the exclusion of everything else. Only a few, in the neighbourhood of large towns, engage in the local sale of dairy produce, and that most frequently as an auxiliary industry. Hence it is necessary to distinguish between "butter factories", for production for the foreign market, and associations for local supply.

In consequence of the comparatively small population scattered over the whole area of the country, Finnish co-operative "butter factories" have

very few members and only a small stock of cattle. Forty per cent have less than sixty members, and only 20 % have more than 1,000 cows. The general average is 105.4 members with 689.2 cows per association, whilst in Denmark, for example, the figures corresponding are 156 members and 956 cows.

In the Finnish co-operative butter making societies, the foundation of which is generally facilitated by the State, which grants them loans on favourable terms up to the amount of 50 % of the expense of their first establishment, the value of the shares is on an average 20 marks. The supplementary personal liability of each member varies from 50 to 100 mks. per share, but in many societies there is absolutely no limit.

The general progress and present situation of these associations is seen in the following table :

TABLE VIII. — *Development of Co-operative Butter Making Societies in Finland, between 1902 and 1913.*

Years	Number of Societies Registered	Situation of the Societies that have Furnished Statistics					Societies Furnishing Statistics			Funds of the Societies			
		Members (Thous. ands)	Number of Cows (Thous. ands)	Per-centage of Cows in the whole Country	Yield of Milk (Thous. ands of kgs.)	Butter Sold (Thous. ands of kgs.)	Per-centage of Entire Export from Finland	Amount of Sales (Thous. ands of Mks.)	Societies Furnishing Statistics	Value of Dairies in Thousands of Mks.	Payments Made	Thousands of Mks.	Per-centage of Total Debts
1902	28	2.4	16.4	1.5	—	—	—	—	—	—	—	—	—
1903	75	5.5	43.9	4.1	37,591	1,529	14.8	3.5	29	375	—	98	23.7
1904	145	11.8	87.0	8.1	75,018	3,004	25.1	7.6	97	1,490	90	366	21.9
1905	225	21.2	136.6	12.7	157,754	6,310	34.6	15.5	139	2,215	209	729	23.2
1906	292	29.0	203.5	19.3	214,779	8,698	57.8	22.2	151	4,219	300	1,102	24.5
1907	331	31.3	216.6	19.7	222,479	9,081	71.4	22.6	222	6,022	422	1,914	26.9
1908	342	33.9	242.7	21.7	265,394	10,656	86.7	28.6	249	7,122	572	2,672	31.7
1909	355	35.7	246.6	22.5	258,440	10,626	91.4	27.9	265	7,469	641	3,320	36.2
1910	363	34.8	242.6	21.3	267,000	10,854	97.8	29.2	278	7,135	785	3,915	43.9
1911	371	35.8	244.6	21.3	287,398	11,043	94.3	32.8	301	7,415	951	4,750	50.9
1912	389	37.0	259.0	21.6	293,300	12,000	99.9	35.0	296	6,815	1,033	5,293	60.7
1913	418	39.0	255.0	21.7	325,000	13,300	105.2	37.0	303	6,550	993	5,571	59.6

The Finnish co-operative butter making societies generally engage also in various secondary industries. Thus we know that many of them undertake the collective purchase of agricultural machinery and produce for their members. We have just seen that others, in the neighbourhood of large towns, engage in retail sale of milk and cream. Others again have installed mills and saw-mills. Finally poultry improvement and even more, pig improvement is becoming more and more general among them.

Most of them sell their produce through the medium of the "Valio, Central Co-operative Society for the Export of Butter," which we shall consider later. The butter factories of the country have united in *Provincial Federations* and it has been decided that their delegates shall meet annually from 1914 in a *National Congress*.

(b) *Co-operative Societies for the Sale of Milk.*

As we have just mentioned, the societies of this character are chiefly to be found in the neighbourhood of the larger cities of the country, Helsingfors, Åbo, Viborg, Tammerfors, Vasa etc., and along the Russian frontier, for the supply of Petrograd. They vary considerably in their organisation and many of them do not register in the commercial register.

Owing to this and the fact that it is only too often that their work is not to be distinguished from that of the butter factories for local sale and of the co-operative distributive societies, it is at present impossible to estimate their importance with any accuracy.

(c) *Co-operative Societies for the Sale of Livestock and Meat.*

The first Finnish society of this kind was founded in 1909. It extends its action throughout the archipelago of the Åland islands, half way between Finland and Sweden, with the object of selling its members' cattle and the meat obtained from them at Stockholm. Although founded with very little capital, its business was so profitable, that at the end of the first year, a second co-operative society of the same character was founded at Kuopio to supply the Petrograd market. In this case also the results were excellent and a third society was formed at Tammerfors in 1912, with a view to the supply of that town and the capital, Helsingfors. In 1913 a fourth was founded in the Southwest of Finland for exportation to Sweden and Germany. Finally in 1914, after the "Pellervo", in view of the success of the first attempts, had decided to support and encourage this new class of association, 4 new societies of this character arose, bringing the total number of those now existing up to eight.

The great European war having meanwhile broken out, these eight societies formed a "Union" among themselves and so were able to make profitable contracts with the Russian administration for the supply of meat to the army.

No statistics have yet been published of the work of this class of society.

(d) *Co-operative Societies for Poultry Improvement and the Sale of Eggs.*

A few years ago scientific poultry improvement was so to say unknown in Finland, and eggs (above all from Russia) were imported to the amount of about 2,000,000 marks a year. In several directions efforts were made to improve the situation, but it is only since the "Valio," the Central Co-operative Society for the Export of Butter, engaged a special expert for the business that any results, however unsatisfactory, could be obtained.

At present 33 co-operative societies for the sale of eggs are registered in the commercial register, but besides the associations officially constituted, there are even more that, although they have not thought necessary to obtain official authorisation, none the less do a fairly active business. All the associations of this class are still comparatively of very little importance in regard to the amount of their business. The majority hardly sell 20,000 eggs a year. Some, however, in 1914, sold 50,000, 100,000 and even 150,000.

In this case also, owing above all to the very recent introduction of this class of co-operative business in Finland, there are no statistics available.

(e) *Co-operative Societies for the Sale of Wheat and Co-operative Mills.*

For several years many co-operative credit societies have been engaged in the co-operative sale of wheat, as simple intermediaries between the producers, that is to say their members, on the one hand and the purchasers on the other. Special loans have even been granted by the Central Credit Institute of the Finland Rural Co-operative Societies with the object of encouraging and developing this kind of business. Some co-operative dairies have followed the example of the credit societies and the number of co-operative distributive societies engaged in the sale of wheat has been for some time increasing from day to day. As unhappily the spirit of speculation is tending more and more to exclude true co-operation from this business, the "Pellervo" is now attempting to promote the foundation of absolutely independent co-operative societies, exclusively for the sale of wheat. Some have already been founded, but it is too early to pronounce an opinion in regard to the results obtained.

In regard to co-operative mills, 64 are registered in the commercial register, 36 being established as auxiliary industries by an equal number of butter factories; 18 are associated with co-operative saw mills and, finally, 10 have been founded as entirely independent co-operative societies. Association under various forms for grinding corn being traditional in Finland for centuries, there is no doubt that these 64 officially recognised mills are but a minority of those that actually exist.

Let us add that the results given by the 10 officially recognised co-operative mills have been very little satisfactory and the "Pellervo" is now studying how to reorganize this kind of co-operative business.

(f) *Co-operative Saw Mills.*

This kind of association only began to develop in Finland after the institution in 1913, by the "Pellervo," of a special office, under the direction of an expert, to give the farmers useful advice for the proper cutting of their wood. At present, according to the official registers there are 38 co-operative saw mills in the country, 18 associated with the same number of co-operative flour mills, 11 with as many co-operative butter factories and, finally, 9, which are independent associations. No statistics have as yet been published of the work of these 38 saw mills. The results of their working that are known are, however, very encouraging.

(g) *Co-operative Societies for Fishing and the Sale of Fish.*

The societies founded by professional fishermen or by farmers on the sea coast or on the shores of the rivers and lakes, all abounding in fish, with a view to its sale, are now very numerous. Unfortunately most of them have not considered it necessary to obtain legal recognition and only one, the "Fishermen's Co-operative Society of the Archipelago of Helsingfors", founded in 1907, has furnished regular statistical information in regard to its work. Violently opposed at its start by the merchants, this association all the same triumphed over its competitors and attained the most satisfactory results. As far as can be judged from the fragmentary information collected in regard to other co-operative societies of the same class, their development proceeds on absolutely similar lines. The statistics we give below of the work of the Helsingfors society may therefore give an approximate idea of the economic and social importance of this class of association.

TABLE IX. — *Work of the Co-operative Society of the Fishermen of the Helsingfors Archipelago.*

Year	Number of Members	Annual Sales (in Marks)	Profit (+) or Loss (—) (in Marks)
1907	91	—	— 1,149
1908	134	73,421	— 5,706
1909	150	71,236	— 2,251
1910	154	115,849	+ 600
1911	157	156,488	+ 5,214
1912	161	197,639	+ 5,692
1913	165	244,607	+ 9,861
1914	160	255,548	+ 1,554

(h) *Various Non-Agricultural Co-operative Societies for Production and Sale.*

Apart from the kinds of association we have just considered, no other kind of *Agricultural* Co-operation for production and sale has yet been tried in Finland. But outside the field of agriculture very many co-operative societies for production and sale have been founded, above all among workmen engaged in industry and transport. The commercial register reports 45, of which 17 were founded by dock labourers, 6 by stone quarrymen, 4 by ships' painters, 4 by workers in metal, 3 by joiners, 2 by locksmiths, 2 by saddlers, 1 by workers in felt.

Unfortunately, the results obtained by these associations have been generally very unsatisfactory. Either the societies belonging to this group have been unsuccessful in business, after which they have dissolved, or their business has succeeded and in that case most of them have gradually been transformed into ordinary profit seeking undertakings. The cause of the unsuccess of non-agricultural co-operative production and sale is almost always either the want of competent officials, or dissensions among the members who are not sufficiently instructed in the general principles of co-operation. The absence is felt also of any organisation like that of the "Pellervo" for the agricultural societies.

Since the rules of the "Pellervo" absolutely forbid it to extend its action beyond the field of strictly agricultural co-operation, it is to be hoped that one day or another a similar institution will be founded for the benefit of non-agricultural Finnish co-operation.

§ 6. CO-OPERATIVE CREDIT.

The considerable difference we have observed between the progress made by *agricultural* and non-agricultural co-operation in regard to production and sale we shall find again and even in a more marked degree when we turn our attention to co-operative credit.

In regard to *agricultural* co-operative credit, quite recently, in the number of this bulletin for February of this year, we published a study on the subject too complete for it to be necessary for us to deal with it again in detail now. We shall therefore only give a general table showing the development of this kind of co-operation from the start up to the present day, and its situation at present, which will serve on the one hand, to complete the earlier information published in our article of February, and, on the other, as a means of comparing the progress made by *agricultural* and *non-agricultural* co-operative credit in Finland.

TABLE X. — Progress made by the Agricultural Credit Banks in Finland from 1903 to 1914.

Year	Number of Banks		Total Number of Members	Net Amount of Total Assets of Members in Marks	Capital of the Agricultural Banks		Loans granted by the Agricultural Banks on December 31st.		General
	Registered in the Commercial Register	In Relations with the Central Credit Institute			Total in Marks	Percentage of Total Debt	Total in Marks	Average per Member in Marks	
1903.	24	10	253	1,918,000	2,000	3.5	45,000	176	200,000
1904.	87	69	1,724	11,861,000	17,000	5.8	273,000	158	800,000
1905.	140	119	3,662	18,704,000	49,000	7.0	648,000	177	1,500,000
1906.	176	148	4,930	23,885,000	84,000	8.1	968,000	196	1,900,000
1907.	240	210	8,231	35,942,000	142,000	7.9	1,786,000	217	3,700,000
1908.	308	268	11,745	52,780,000	242,000	7.6	3,010,000	256	5,300,000
1909.	385	340	15,688	71,240,000	369,000	8.9	3,864,000	246	6,200,000
1910.	418	374	17,404	83,791,000	491,000	10.9	4,197,000	241	6,800,000
1911.	445	398	18,546	95,442,000	610,000	13.1	4,363,000	235	7,300,000
1912.	453	399	19,390	110,666,000	713,000	14.2	4,695,000	242	8,000,000
1913.	478	416	19,892	128,923,000	824,000	14.2	5,419,000	272	8,900,000

In comparison with this remarkable and continual progress, the development of *non-agricultural* co-operation in Finland is incontestably very unimportant.

In fact it is only represented in the country by *two* associations of Schultze-Delitzsch type, one founded at Kurikka in 1903 and the other at S. Michael two years later. The former with difficulty continues to exist; the latter has 46 members and a share capital of 5,900 mks. and has granted loans for a total amount of 40,000 marks.

If to these two banks we add that founded in 1902 by the total abstinence students of the University (55 members, 10,000 marks capital and 45,000 mks. advanced as loans), that of the railwaymen, founded in 1908 (260 members, 15,000 marks capital and loans to the amount of 22,000 marks), that of the employees of the Co-operative Distributive Societies' Federation, founded in 1913, and finally that, quite recently founded (1914), of various classes of small employees, clerks and small manufacturers at Helsingfors, we have the complete list of the *non-agricultural* co-operative credit societies of Finland.

If it were necessary to show all the importance of the work accomplished by the "Pellervo" and the need there is of founding a similar institution to assist non-agricultural co-operation in Finland, what better argument could be desired than this striking comparison?

§ 7. MISCELLANEOUS CO-OPERATIVE SOCIETIES.

Under this head, the Finnish statistical returns at present include :

(1) Co-operative societies for collective purchase and use of machine threshers, (2) Co-operative societies for working peat moss bogs, (3) Co-operative societies for the installation of telephonic communication and (4) Co-operative societies for the purchase of homesteads and building dwelling houses.

(a) *Co-operative Societies for Purchase and Use of Machine Threshers.*

As indicated in their title, these associations were originally founded for the collective purchase and use of machine threshers and the necessary locomotive engines. The number of members hardly exceeds 20. The subscriptions vary from 2 to 5 mks. per hl. of seeds and the personal liability of members varies from ten to thirty marks. The thresher is generally paid for in five or six years and then the societies use their money for the purchase of other agricultural machines and engines. At the present date they almost all have the most perfect equipment and the official title of co-operative societies for purchase and use of machine threshers should be substituted by that of co-operative societies for purchase and use of agricultural machinery in general.

The associations of this class in Finland are very many. It is true that only 235 are registered in the commercial register, but that is only a small proportion of those actually existing. The statistical tables of the "Pellervo" show *hundreds* that have never been officially registered.

Taken all together, these societies are very prosperous.

(b) *Co-operative Societies for Working Peat Moss Bogs.*

The employment of peat moss litter in stables and cattle stalls is of the greatest importance for the progress of agriculture as it is the best means of preserving dung. As Finland is very rich in peat moss bogs, it is natural that their exploitation for the benefit of agriculture has developed very considerably. The co-operative societies have had a great share in this development. They buy a bog or rent it with right to dig the peat, and build the sheds required for drying it, obtain the equipment indispensable and then sell the peat to their members.

Some of them are very large associations, with plant of the value of 50,000 mks. or 100,000 mks. and export the peat. Experience having, however, shown that a large number of small businesses scattered over the country could provide it with peat cheaper than a single large one (on account of the high cost of transport), the "Pellervo" is now endeavouring above all to encourage the constitution of small local co-operative societies.

At the beginning of the present year there were 127 societies for working peat moss bogs registered in the commercial register. As a matter of fact, the real number of these associations is considerably higher.

(c) *Co-operative Societies for the Installation of Telephones.*

In a country with so scattered a population as Finland, the possibility of communication by telephone has an importance for the farmers that their fellows in Central Europe cannot even imagine. In winter, above all, when snow encumbers the few country roads, it is only by means of the telephone the Finnish farmers can give their orders, learn the current prices, call the doctor or the veterinary surgeon, ask help in case of fire etc. Under these circumstances it will be understood that Finland is one of the countries where telephones are most largely used. Where they have not yet been installed by the large companies, the farmers have formed special co-operative societies, for the purchase of the plant, the fixing of the wires and their connection with the nearest central stations of the great inter-urban system.

Although this class of association is quite a new thing, there are already no less than 58 co-operative societies for the purpose officially recognised and their numbers increase from day to day. The economic results given by these societies have everywhere been most satisfactory.

(d) *Co-operative Societies for the Constitution of Homesteads and for Building Houses.*

In spite of the classification adopted in the Finnish statistical returns we have here two quite different sorts of association, one, strictly rural, aiming at the constitution of small agricultural holdings for its members, the other, almost exclusively urban, engaged in the building of workmen's houses. Both also are as yet of quite recent introduction into Finland.

The co-operative societies for the constitution of homesteads endeavour to buy large estates cheap and divide and distribute them among their members. The commercial register reports 56 of these societies at the present date, but many of them have not yet been able to realise their object owing to lack of capital. On January 1st. of the present year, thirteen of them, which had succeeded in obtaining Government loans to the amount of 700,000 marks, had bought altogether 6,000 ha., and distributed them amongst 267 members as homesteads.

At the same date there were 43 co-operative house building societies. Several of them have a very solid position, with share capital of between 500 mks. and 3,500 mks. and the personal liability of members generally limited to the amount of their shares. Some of these associations have erected dwelling houses of a value of from 100,000 mks. to 500,000 mks., containing from 60 to 150 living rooms. This has been rendered possible by loans obtained either from the Finnish Urban Mortgage Bank or the large insurance companies.

Unhappily these are only isolated and exceptional cases. The co-operative building societies with shares of smaller amount seem to have had great difficulty in collecting the sums they require for realising their objects and, without a powerful central organisation on the model of the "Pellervo", it is to be feared their further progress can only be very slow and difficult.

§ 8. CENTRAL INSTITUTIONS OF FINNISH CO-OPERATIVE ASSOCIATIONS.

Owing to the constant recommendation and energetic assistance of the "Pellervo" and encouragement from the State, the movement in favour of centralisation among the Finnish co-operative societies has become very pronounced. This movement is directed on the one hand towards federation of the various classes of co-operative societies; in provincial unions in the first place, and afterwards into national unions and on the other towards the foundation of central economic institutions for the promotion of the united efforts of the local associations.

If we take into consideration that the principal object of the non-economic federation of the local co-operative societies is to give them unity of aim, to direct them, inspect them, and watch over the general interests

of co-operation and to work to extend the principles and practice of co-operation we shall at once see that such a federation, not strictly economic, of co-operative societies is less necessary in Finland than elsewhere, at least as far as agricultural co-operation is concerned.

In fact, the various objects pursued in this respect by federal unions are no other than those the "Pellervo," that remarkable society which created agricultural co-operation in Finland and to which the greater part of its success is due, has pursued from its foundation with the fortunate results of which we are aware. For agricultural co-operation the "Pellervo" fulfils all the non-economic functions the provincial or national unions of the various classes of association could fulfil.

Under these circumstances, it is natural that federation in non-economic unions has made very little progress in Finland. In fact, two groups of co-operative societies alone, the distributive societies and the butter factories have as yet formed provincial unions, principally intended for a more detailed study of the numerous technical questions involved in this class of association than the "Pellervo" is in a position to undertake. Delegates of these two classes of provincial federation have been meeting since 1914 in national congresses, the transformation of which later into strongly organised federations is under discussion.

In the economic field, the question of federation presents itself under quite a different aspect.

Founded for the diffusion of co-operative principles generally and to encourage in every way the foundation of agricultural co-operative societies, the "Pellervo" has, on principle and systematically, always refused to occupy itself directly with the transactions and economic operations of the societies born of its initiative. It has quite rightly considered that it is infinitely better to found special central institutes for the purpose and has concentrated all its efforts on the attainment of this end, in which it has fully succeeded.

At present there are in Finland five central economic institutions for agricultural co-operation, namely:

- (1) The Central Credit Institute of the Rural Co-operative Banks, founded in 1903,
- (2) The Union of Co-operative Distributive Societies, founded in 1904,
- (3) The Central Co-operative Agricultural Purchase Society, "Labor," constituted in 1906,
- (4) The Central Co-operative Agricultural Purchase Society, "Hankkija," founded in 1905,
- (5) The Central Co-operative Society for the Export of Butter, "Valio," founded in 1905.

Before giving an outline of the work of these institutions, we shall give in the following table some general statistics of the Finnish Central Co-operative Societies.

TABLE XI. — *Federations of Co-operative Societies in Finland between 1903 and 1915.*

Year	Number of Unions of Co-operative Societies	Number of Societies Affiliated	Capital in Marks	Capital not paid up by Members in Marks	Sales and Loans in Marks	Total Annual Profit in Marks	Branches and Store-houses	Number of Employees
1903	1	10	303,000	—	42,000	800	—	2
1904	1	69	307,500	—	264,000	10,000	—	3
1905	3	213	350,000	111,100	2,327,000	47,000	1	29
1906	5	413	351,700	117,900	15,540,000	236,000	4	64
1907	5	584	617,000	878,400	26,200,000	384,000	7	109
1908	5	741	886,500	1,038,200	34,303,000	262,600	12	141
1909	5	895	1,058,000	1,200,400	35,122,000	291,200	16	154
1910	5	946	1,236,400	1,255,400	27,984,000	383,900	22	159
1911	5	1,028	1,501,500	1,398,000	43,490,000	778,500	29	204
1912	5	1,113	1,953,600	1,610,800	50,930,000	651,600	35	256
1913	5	1,284	2,368,200	1,766,400	59,578,000	576,600	36	296
1914	5	1,536	2,738,800	2,278,400	65,648,000	1,359,600	41	346

(a) *Central Institute of the Rural Co-operative Banks in Finland.*

As in a very recent number of this Bulletin we dealt with this Institute of which we gave ample details, we shall now simply give the following table showing the progress made by it since its foundation.

TABLE XII. — *Progress made by the Central Institute of the Rural Co-operative Banks of Finland from 1903 to 1915.*

Year	Number of Banks Affiliated	Staff	Capital in Marks	Credit Opened to Local Banks in Marks	Credit Received by the Local Banks up to 31st. December in Marks	Annual Profit in Marks
1903	10	2	303,000	79,000	42,000	8,000
1904	69	3	307,000	429,000	264,000	10,000
1905	119	3	315,000	834,000	623,000	20,000
1906	148	4	323,000	1,225,000	948,000	22,000
1907	210	4	333,000	2,068,000	1,706,000	23,000
1908	268	4	342,000	3,257,000	2,878,000	25,000
1909	340	6	366,000	4,000,000	3,662,000	24,000
1910	374	6	391,000	4,388,000	3,867,000	36,000
1911	398	7	416,000	4,738,000	3,932,000	24,000
1912	399	8	426,000	4,990,000	4,113,000	24,000
1913	416	9	388,000	5,553,000	4,711,000	36,000
1914	441	10	429,800	6,319,000	5,342,000	41,000

(b) *Union of Co-operative Distributive Societies.*

Founded in 1904 by 12 co-operative distributive societies, this Union had at the start to contend against serious difficulties. It only accepts to day as members such societies as are firmly organised in an economic sense. The shares are 100 marks each and the affiliated societies must subscribe one share for every 25 members. The members' liability is 300 marks per share. The management is in the hands of a Board of eight members, elected by the members of the society and the Board in its turn elects three Directors.

Of the profits, 75 % are to be placed to the reserve fund until this fund is equal to the total amount of the shares, after which only 25 % of the profits shall be placed to it. The surplus net revenue may be utilised for payment of a maximum interest of 6 % on the shares.

The circumstances permitting, a further dividend in proportion to the purchases may be paid. Finally, any eventual balance shall be placed to a special fund, to encourage the development of agricultural co-operation or utilised for works of public utility.

The Union at this moment possesses ten storehouses. It also supports a consultation office and a laboratory for experiments.

Its work, previously limited to purchase and sale business, was extended in 1914 to include direct production, by the establishment of various workshops, as well as by the purchase of a large Swedish match factory.

The general progress of the Union, now possessing buildings in the six principal towns of the country, is seen in the following table.

TABLE XIII. -- *Progress of the Union of the Co-operative Distributive Societies of Finland from 1905 to 1915.*

Year	Number of Societies Adhering	Branches and Storehouses	Staff	Capital		Sales in Marks	Annual Profit in Marks
				Subscribed	Not Paid up		
1905	27	1	16	112,400	84,300	1,004,000	17,000
1906	57	4	24	233,800	164,100	4,037,000	55,000
1907	80	5	58	363,800	224,100	8,885,000	154,000
1908	115	6	80	656,000	342,000	14,254,000	107,000
1909	131	6	88	789,500	382,200	14,972,000	155,000
1910	139	7	81	920,000	390,600	13,610,000	165,000
1911	148	9	104	1,101,000	432,000	16,142,000	367,000
1912	168	10	122	1,489,600	479,700	10,532,000	358,000
1913	196	10	137	1,867,600	538,200	22,968,000	189,000
1914	244	10	142	2,304,800	768,600	24,486,000	577,000

(c) *Central Co-operative Agricultural Purchase Society, "Labor."*

This society really dates from 1897. It was founded as a co-operative society for purchase and sale by a group of large landowners in the south of the country, for their exclusive use. After the promulgation of the law on co-operative associations in 1901, the "Labor", on the initiative of the "Pellervo", attempted to reorganise itself in order to assume the character of a central co-operative agricultural purchase society for the whole country. It only succeeded partially in this, as it would not accept the co-operative principles in their entirety, and, as we shall see hereafter, the "Pellervo" found itself obliged to promote the foundation of a central institution of a more really co-operative nature.

Now, after its partial reorganisation in 1906, the "Labor" accepts as members both private individuals and associations. The entrance fee varies from 50 to 500 marks as the Board of Management decides. The shares are 50 marks each. The liability is 1,000 marks per share and any member doing business with the society to an amount exceeding 5,000 marks in a year must subscribe a second share. From the profits there is first of all deducted a maximum interest of 6 % per share, and then 20 % is placed to the reserve fund, which is increased by the entrance fees.

In addition to the dividends contemplated in the rules, the "Labor" annually grants special dividends of an amount varying from 1 % to 3 % of that of the purchases during the year. In 1914, for example, this special dividend amounted to 27,500 marks.

The administration of business is in the hands of a Board of Management of six members. The "Labor" has branches and storehouses in various parts of the country. In 1914 it started a special pension fund for its employees.

The following table shows the progress of the "Labor" since 1906, that is to say since the reorganisation of the primitive association as a pseudo-co-operative central society. This table shows, better than many words could, how ineffectual this reorganisation has really been.

TABLE XIV. -- *Progress made by the "Labor" from 1906 to 1915.*

Year	Number of Members		Branches and Store-houses	Staff	Capital		Sales in Marks	Annual Profits in Marks
	Total	Individual Land-owners			Subscribed	Not Paid up		
1906	195	164	—	11	427,000	385,000	1,564,000	38,000
1907	184	165	—	12	460,000	404,000	1,868,000	51,000
1908	229	198	3	15	492,000	406,000	2,301,000	11,000
1909	259	223	4	15	553,000	449,000	2,707,000	23,000
1910	267	227	6	20	611,000	487,000	2,408,000	28,000
1911	318	377	9	30	602,000	547,000	3,230,000	43,000
1912	383	335	12	30	842,000	671,000	4,302,000	61,000
1913	416	359	12	15	944,000	740,000	4,557,000	48,000
1914	429	371	12	51	982,000	751,000	5,439,000	81,000

(d) *Central Co-operative Agricultural Purchase Society, "Hankkija."*

As long as the negotiations for the reorganisation of the "Labor" as a real central co-operative agricultural purchase society for the whole country continued, the "Pellervo" confined itself to the maintenance of a temporary office, serving as intermediary for agricultural purchases for private individuals and associations not members of the "Labor." But as the negotiations did not succeed, the temporary office was quite naturally transformed into a central co-operative society under the name of "Hank-kija."

In addition to local co-operative societies, it also accepts as members individual farmers, but the number of these may not exceed one third of the total number of members. The shares are 100 marks each, and the members' liability is 400 mks. per share, and every member must subscribe shares in proportion to the amount of the business he does with the association in the year. From the annual profits 20 % is deducted and placed to the reserve fund until that fund amounts to 200,000 mks. A second amount of 10 % is placed to a special fund for the development of agricultural co-operation and other works of public utility. It is only after these compulsory deductions have been made that a dividend of a maximum amount of 6 % may be paid on shares.

There is no provision in the rules in regard to eventual dividends to members on the amount of their annual purchases. In 1914, the amounts distributed under this head came to 40,600 marks.

The association has a Board of Management of six members, which elects a Board of Directors consisting of three members.

The "Hankkija" has founded branches in about ten of the most important agricultural centres of the country; it has also numerous storehouses in places best suited for despatch and transport.

Its progressive and constant development is seen in the following table.

TABLE XV. — *Progress of the Central Co-operative Agricultural Purchase Society, "Hankkija."*

Year	Number of Members		Branches and Storehouses	Staff	Capital		Sales — in Marks	Annual Profits — in Marks
	Total	Individuals			Subscribed — in Marks	Not Paid up — in Marks		
1905	67	—	—	10	33,800	26,800	700,000	10,000
1906	97	—	—	17	55,800	38,800	1,500,000	6,000
1907	134	—	2	23	82,300	54,800	2,600,000	31,000
1908	206	25	3	28	253,700	87,200	3,100,000	9,400
1909	359	121	5	25	241,600	162,400	2,841,000	29,800
1910	358	122	7	28	207,300	162,800	3,589,000	15,900
1911	439	148	9	38	262,500	196,000	4,817,000	61,500
1912	482	156	10	45	329,000	212,800	5,444,000	75,600
1913	610	196	14	66	478,000	287,200	6,163,000	41,600
1914	832	271	15	76	632,400	409,600	7,023,000	116,000

(e) *Central Co-operative Society, "Valio," for Export of Butter.*

On account of the extreme attention it gives to orders and its strict requirements in regard to the quality of the produce it delivers, this institution, which began in a very modest way in 1905, is now second in importance among undertakings of the kind in the countries of Northern Europe.

As members it may only accept butter making societies (co-operative or limited by shares), which satisfy certain very strict conditions in regard to their organization and equipment.

The shares are 100 marks each, the liability of members is 500 marks per share and each member must subscribe a number corresponding with its annual production. The entire produce must be consigned to the "Valio."

After deduction of amounts to be placed to various funds according to the rules and a maximum amount of 6 % interest on the shares, the entire net profits are divided among the members in proportion to the amounts represented by the produce consigned.

The society has a Board of Management of 10 members elected at the general meeting of members and a Board of Directors of 3 members elected by the Board of Management. It has its headquarters at the port Hangö, and communication by sea is kept open all the winter by means of powerful ice breakers. Branches and storehouses are installed in various parts of the country and at Petrograd.

Besides its chief business, the "Valio" has organised special dairy and cheesemaking courses. It has also instituted dairy shows to which it annually assigns very considerable prizes. We saw above that lately the "Valio" has undertaken the encouragement of poultry improvement. In this field also the results obtained have been most remarkable.

Finally, the "Valio" supports several experts who traverse the country in every direction to give advice, not only to the members of the association, but to any one who asks for it.

The development of this remarkable institution is seen in the following table.

TABLE XVI. — *Development of the "Valio" from 1906 to 1915.*

Year	Members (Butter Making Societies)	Branches and Store- houses	Staff	Capital		Sales — Mks.	Annual Profit — Mks.	Share of the "Valio" in the Total Exportation from the Port of Hangö
				Subscribed	Not Paid up			
1906 . .	80	—	8	125,000	125,000	7,491,000	115,000	20.9
1907 . .	141	—	12	247,100	195,500	11,141,000	125,000	38.1
1908 . .	146	—	14	281,000	203,050	11,770,000	129,000	39.7
1909 . .	150	1	20	308,600	207,000	11,840,000	119,000	42.4
1910 . .	157	2	24	361,700	215,000	13,310,000	139,000	48.5
1911 . .	150	2	25	408,000	223,000	15,367,000	283,000	47.8
1912 . .	172	2	42	478,500	248,000	17,548,000	133,000	52.1
1913 . .	201	2	39	557,000	301,000	21,179,000	262,000	64.5
1914 . .	232	4	64	668,000	349,000	23,558,000	544,000	81.4

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

CANADA.

CO-OPERATIVE WOOL SELLING IN QUEBEC. — The *Agricultural Gazette of Canada* for August contains an interesting note on the work of a number of associations for the co-operative sale of wool which have been organised in Quebec, chiefly through the efforts of members of the staff of the Animal Husbandry Department of Macdonald College. Assisted by a Federal grant the Department has been able to undertake a good deal of extension work, and, in addition to giving a large number of lectures and demonstrations illustrating the proper methods of shearing, and of preparing and packing fleeces, has this year successfully assisted eight local wool growers' associations to market their wool.

The results have been most encouraging. Last year a beginning had already been made in Co-operative wool selling, though in a very tentative way, with a single association in Pontiac County, which that year sold about twelve thousand pounds of wool direct to manufacturers at an advance upon current local prices of from five to seven cents a pound. This year — 1915 — eight associations, including that of Pontiac, sold collectively at excellent prices a total of 104,192 lbs. of wool. Particulars of the sales for each association are shown in the following table:

Particulars of Associations and Sales in 1915.

Association	Number of members	Number of fleeces	Average weight per fleece	Average price per fleece	Total amount received for wool	Average price per lb. wool
Pontiac	413	6,182	7.06 lbs.	\$2.15	\$13,348.30	30.57 cents
Compton	150	1,806	7.1 "	2.15	3,890.27	30.27 "
Stanstead	83	1,222	8.1 "	2.50	3,060.90	30.80 "
Richmond	75	1,360	7.33 "	2.23	3,022.07	30.12 "
Beauharnois	79	1,029	8.3 "	2.48	2,549.23	29.63 "
Bedford	55	815	8.1 "	2.46	2,045.65	30.52 "
Argenteuil	67	910	7.0 "	2.13	1,938.01	30.63 "
Sherbrooke	53	812	7.4 "	2.26	1,834.77	30.35 "
Totals	975	14,136	7.37 lbs.	\$2.29	\$31,689.20	30.36 cents

The members were supplied with sacks through their associations and were instructed how to prepare and pack the fleeces. Arrangements were made for the wool to be assembled, graded and offered for sale on definite dates at a number of convenient centres within the districts, and the wool was offered in good condition, unwashed, and well packed. As a result, it was sought after by buyers, and realised prices which, according to quality, varied from five to ten cents above prevailing prices.

It will be seen that the Pontiac association, the only one which has been in existence for two seasons, has now more than four hundred members and increased its sales enormously in its second year.

Our readers will remember that we described in our September issue a very similar scheme which was put into operation in Saskatchewan in 1914. It is too early yet to weigh results, and it is common knowledge that many schemes of the kind in different countries have succeeded for a few years (while conditions, perhaps, were very favourable) only to collapse when conditions changed. But history does not necessarily repeat itself, and the schemes we have described have this important element of soundness, that the associations concerned are not merely agencies for selling wool, but are, first and foremost, associations for improving the quality of the wool produced. This being so, their success as selling agencies is likely to be permanent as in each season they will be in a position to offer wool in large lots, uniformly well packed, and of a quality upon the whole superior to the average quality on offer. The Canadian experiments, therefore are well worth watching.

FRANCE.

CO-OPERATIVE DISTRIBUTIVE SOCIETIES IN FRANCE ON JANUARY 1st., 1914. — The *Bulletin du Ministère du Travail* (Labour Office Bulletin), in its number for May-June, 1915, gives information in regard to the French co-operative distributive societies on January 1st., 1914. Leaving out of consideration: 1st., military co-operative societies, 2nd., societies for collective purchase and manufacture of raw material; 3rd., agricultural or other syndicates that have not founded separate co-operative distributive societies; 4th., mutual pharmacies; 5th. stewards' and other warehouses for sale of goods founded by employers for the use of their staff; 6th., commercial societies making deductions in favour of purchases; there were still working 3,156 co-operative distributive societies properly so called on January 1st., 1914, as compared with 3,145 on January 1st., 1913. This increase must be more apparent than real, as the enquiry made in 1914 revealed the existence of several societies that had given no sign of life previously. In fact, 92 societies were founded during the year, but 109 were dissolved, so that there must rather have been a slight decrease in their numbers. The Department of Nord heads the list with 322 societies;

next comes Charente-Inférieure, with 226 associations. Pas-de-Calais, Deux-Sèvres, Gironde, Vosges and Ardennes follow, with more than 100 each. Seine comes only eighth with 99. There is no department that has not at least one; Lozère and Constantine have only one each, but there are 23 departments with less than ten each.

The societies do not limit themselves to the wholesale purchase of produce and merchandise with the object of selling again retail to the associates and sometimes to the public. A large number themselves undertake the manufacture of the goods they sell or at least their industrial transformation, before they deliver them to the consumers. This is especially true of the co-operative bakeries which, at the end of 1913, were 1,299 in number, and to which we must add 597 societies, selling both bread and other articles. We find the largest number of these bakeries in Charente Inférieure: that department has 217 alone, whilst Deux-Sèvres, which comes next, only shows 106. Seine has almost the last place, as it has only 2 societies. It is not very easy to determine the precise number of members and the amount of the business done by the societies, as many did not answer the lists of questions forwarded to them as promptly and carefully as might be desired. Thus we have only information in respect to the business of 2,988 societies, with a total number of 876,179 members. They had done a total business of 315,212,000 frs. in 1913. On the other hand, 90 only reported the number of their members, 13,541 all told. So that there was altogether a total of 890,000 members reported. The 1,212 co-operative bakeries reporting had alone 273,681 members and had done a total business of 65,200,000 frs. in the year. The department of Nord showed the largest number of members and the largest total business, the former being no less than 185,783 and the business done amounting to more than 56,984,000 frs. The least favoured department is again that of Lozère, which reported only 98 members and only 12,000 frs. total business done. For the department of Seine, the figures known are as follow. Paris, 46 societies, of which 45 had 64,319 members and had done business to the amount of 22,087,000 frs.; suburbs, 53 societies, of which 51 had 16,833 members and reported business done to the amount of 7,902,000 frs.

Finally, in regard to the profession of the members, it is interesting to note that 116 co-operative distributive societies recruit their members exclusively among railway employees. Amongst these, 111 reported 69,749 members and a total business of 25,443,000 frs. Again, 23 societies have for their members only Government employees and workmen.

GREAT BRITAIN AND IRELAND.

CO-OPERATIVE FARM IMPLEMENT SOCIETIES. — A few years ago, under the auspices of the Irish Agricultural Organisation society, a scheme was devised for the formation of co-operative societies which should be

able to place at the disposal of their members practically every kind of farm implement, from a one-horse plough to a high-power agricultural tractor. The scheme is described in an article by Mr. T. Wibberley, which appears in the August number of the *Journal of the Board of Agriculture*. In illustration of its results in increasing the area under tillage, the writer gives the following figures relating to four societies :

Society	Number of Members	Total area in tillage for each Society			Average increase per Members
		1913	1914	1915	
		Acres	Acres	Acres	Acres
Meenahcela (Co. Limerick) . . .	21	71	104 $\frac{1}{2}$	158 $\frac{1}{2}$	4.1
Killcedy (Co. Limerick). . . .	20	122	146	176	2.7
Menlough (Co. Galway). . . .	64	454 $\frac{1}{4}$	519	683	3.6
Fourmilehouse (Co. Roscommon). .	32	94	106	153	1.8
Totals. . . .	137	743 $\frac{1}{2}$	875 $\frac{1}{2}$	1,171	—
Averages . . .	34	186	219	293	3.12

These societies were not specially selected, but all are situated in very poor districts, amongst farmers whose capital is very limited and whose holdings average about 30 acres. Had all Irish farmers increased their cultivated area in the same average proportion as the members of these societies, the result would have been an increase of 1,500,000 acres under the plough.

The societies are formed in the same way as other agricultural co-operative societies. As a rule each member is required to take at least five shares of the nominal value of £1, and to pay 2s. 6d. par share on allocation. He also signs a form making himself responsible to the committee for the payment of his shares in full, in the event of the society meeting with financial disaster. The working capital is obtained by means of an overdraft from the local branch of a joint stock bank. This is guaranteed by the members of the committee, who are thus directly responsible to the bank for the security of the amount borrowed, but are in turn secured by the uncalled share capital.

As a general rule, the implements are hired out in the order in which applications for them are made by the members, but precedence is given to the member who wishes to use the implement for the longest period. The rate at which implements are hired out to members of a society is about half what it would cost to carry out the various operations under the old régime. If, for instance, potato sorting by hand costs 15s. per ton, the po-

tato-sorter is hired out at 7s. 6d. per ton. Again, if the ploughing of stubbles by horse labour costs 10s. per acre, a double disc harrowing with the agricultural tractor (which tills the land more effectively) is undertaken at the rate of 5s. per acre. In the case of corn threshing the usual rate is $\frac{1}{2}$ d. per stone threshed.

A well-managed society can soon earn sufficient to pay for the initial cost of the implements. Many instances are on record where a society commencing with two binders has in one harvest earned sufficient to purchase a potato-digger. The potato-digger has gone out on hire, and in its first season has earned sufficient to buy a corn drill, which in like manner has earned the price of a horse-power sprayer, and so on. A society usually begins operations in a small way, but once the farmers of the district recognise its utility the membership rapidly increases, and the society then becomes in a position to undertake the purchase of the more expensive implements.

Part II: Insurance and Thrift

GENERAL.

TECHNICAL CONDITIONS OF FORESTRY INSURANCE.

In the course of the year 1913, we had occasion twice to point out the considerable difficulties in the way of forest insurance, and, consequently the still rudimentary condition of most of the organisations that endeavour to undertake these risks which as yet have been little studied and are not well known. In regard to forestry insurance in France, we said in March, 1913: "The insurance of forests against fire is very badly organized, and in addition is very rarely met with. Nearly all the measures now taken against fire are simply preventive." In September of the same year, speaking of forest insurance in Norway, we showed that, up to 1911, such insurance had had hardly no practical importance. Evidently this situation can only be temporary: it in any case invites us to give all our attention to the suggestions the specialists may make with the object of more nearly ascertaining the extent and limits of fire risks in forests, with a view to fixing a more suitable tariff for these risks. Such are the very interesting ideas M. Lécaille, expert engineer of Commerce, expressed in the course of a lecture, delivered on January 20th., 1912, before the Lorraine Section of the Forest Society of the Friends of Trees. We shall summarise them briefly, considering in turn the nature and the gravity of the damage caused by fire, the various methods employed in estimating the damage and the clauses and tariffs of the Insurance Companies.

§ 1. DAMAGE CAUSED BY FIRE.

The damage due to fire is of various character, and consists in the loss of:

(1) the profit that would have been derived from the ordinary cutting of the parts of the forest destroyed;

- (2) the root stock ;
- (3) the vegetable covering (underwood or the lower part of the trees) and the seeds sown ;
- (4) the leaf litter, nitrogenous manure formed by successive falls of leaves or needles.

Various accessory losses are also to be considered, consisting in :

- Difficulty in regulation, due to partial and premature cutting ;
- Reconstruction of roads destroyed by such cutting ;
- Travelling and valuation expenses ;
- Decrease in value of hunting and shooting leases ;

Various limitations of enjoyment.

Generally, the insurance only contemplates repayment of the intrinsic value, on the day of the fire, of the amount of wood destroyed, which is less than the value, on the same day, of the future profit to be derived from the ordinary cutting.

It also sometimes, but very rarely, and by means of a special extra premium provides against a second loss, called difficulty in regulation, which is, however, not the difficulty in regulation, understood by foresters. This special loss is, as we shall see, a consequence of the method pursued in calculating the first.

When the root stock is insured, which is even a rarer matter, the policy generally takes account only of the purchase price of the plants to the exclusion of the expense in labour.

When a fire is caused by an outsider who is responsible and solvent, for example, by a railway company, the owner of the forest burned has a claim to compensation for all the losses suffered enumerated above. In other words, he has a right to full satisfaction for the loss suffered.

The nature of the losses caused by fire being thus established, let us now consider their importance. This varies with the nature of the forest and the season.

(A) *Broad-leaved forests.* — Fires are most frequent in spring, when the living undergrowth does not sufficiently protect the combustible leaf litter. The fire generally originates in the leaf litter and only it and the undergrowth are ever completely consumed. The heat due to this combustion affects the bark, and the vitality of the trees will suffer more or less, according to the thickness of the bark protecting the cambial layer, the only living part of the trunks. The wood proper is very rarely attacked and will lose very little of its market value.

Thus the high forest wood has so to say nothing to fear from fires ; the standards of stored coppices only very rarely suffer, and, according to M. Lécaille, experience has shown that it is only in fires of exceptional importance that the loss suffered by the standards amounts to the fifth part of the value of these trees. The copse wood will suffer more, but it is very seldom that the damage extends beyond the bark.

The root stock will not generally suffer at all from fire, and, after cutting back, there will be new shoots from the old root stocks.

Fire therefore will only cause broad leaved trees damage of very slight importance. M. Lécaille mentions the case of 7 fires occasioned in 1911 in Lorraine by a local railway, for which a total sum of not more than 700 francs was paid, that is an average of 100 frs. per fire. Either the forests are young and their value is slight ; or they are older and less exposed to suffer by fire. After the fire and deduction of the loss, the older they are the more considerable will be the proportion of the salvage. Thus, again according to M. Lécaille, in a very serious fire in Belgium in 1911, extending over nearly 50 hectares and causing more than 12,000 frs. damage, compensation was only allowed, in the case of copsewood ready to be cut, to the amount of 50 fr. per ha., that is to say for the value of the bark.

(B) *Conifers*. — Fires cause more considerable losses among conifers than among the broad leaved trees. As the sap consists of eminently combustible material by which the bark is impregnated, the combustion will be the more complete. Nevertheless, the wood itself seldom suffers, and the value of the salvage will be more considerable the older the trees are.

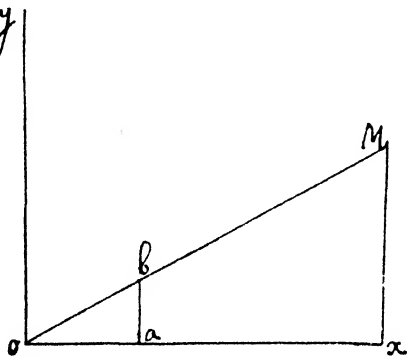
Let us, however, observe that, in the case of conifers, the death of the upper part will entail that of the part below the ground and consequently the loss of the root stock.

§ 2. METHODS OF ESTIMATING LOSSES.

The loss occasioned by a fire being the difference between the value before and after the fire, M. Lécaille shows as follows the methods of estimating the value of a forest of a given age.

(A) It may first of all be admitted that the value of a forest is in proportion to its age. This has the incontestable advantage of simplicity, but it must be recognised that the value thus calculated is higher than the present value of the future proceeds to be obtained by felling the trees.

If we express this method by the usual diagram, marking different lengths, on a line ox (axis of age), corresponding with the age, and draw perpendiculars to these points of length in proportion to the value of the wood, the growth of the wood will be represented by a straight line oM .



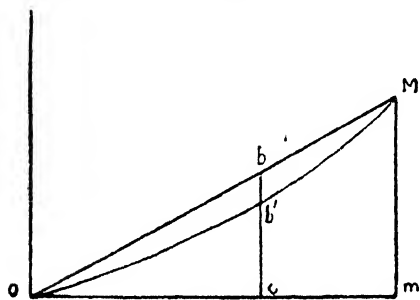
If at 30 years the value of the cutting is 300 frs., represented by the length Mx , the value at the age represented by the length oa will be represented by the length ab .

(B) *Method of the Insurance Companies*. — To find the value of a copsewood not yet arrived at the age for cutting, the Companies assume, as

in the preceding method, that the value of the wood increases at an equal rate, but as the value in proportion to the age cannot be immediately realised, the Companies reduce it by means of a discount calculated at compound interest for as many years as have to run between the date of the fire and that of the felling, so as to calculate the compensation for the date of the fire and not of the felling.

The rate of interest adopted was formerly 5 % and has been in turn reduced to 4 % and 3 ½ %. Some Companies even allow 3 %.

Expressing this method by a diagram, the successive values will follow the curve $o b' M$. The value $c b$ corresponding with the age being reduced by the length $b' b$, representing the discount for $m o$ years.



The length $b' c$, value of a forest, will be so much greater as the length bb' is less, that is to say it will be the greater the smaller the discount is. The concavity of the curve will thus decrease with the rate.

For standards, the Companies adopt another method which we shall show below. The value of the young plantations is generally determined by the method just explained.

(C) *Foresters' Method.* — To estimate the future value of a wood, the foresters consider the capital, which, invested at the start at compound interest at the rate T , has become at the time of felling equal to the revenue from the cutting. The value of a forest at a given age is, for the foresters, the difference between the value of this capital at interest at this age and the original capital considered as immobilisable. In this way the growth of a forest is assimilated to that of a capital sum invested at the first plantation at about 7 % compound interest.

(D) *Method of Annuities.* — According to this method, the increase in value of a forest is assimilated to the increase in capital through the successive investments of the same annuity at compound interest, at the end of each year during the whole period of forest management.

These methods are employed to estimate the value of a forest which has no market value as yet, that is to say copsewood before the usual period for felling, or conifers before they are felled for mining timber.

The trees of the first class if allowed to grow are classed as timber and their price per cubic metre is far higher.

The following is the rule habitually followed by the Insurance Companies in fixing the value of a tree :

The value, fixed as if it had arrived at the age for felling (generally 120 years) is reduced by a discount at compound interest for so many years as remain to pass before the age for felling is reached. The rate of discount has varied as in the case of copsewood ; it is now about 3 %.

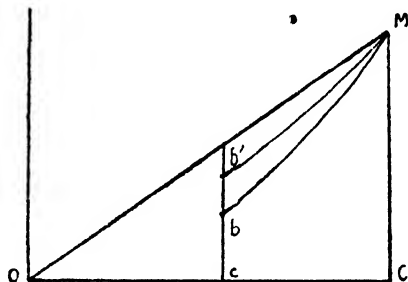
Let $c b$ be the present value of a tree, estimated on its cubic contents. At the age for felling $o c$, its value will be $C M$; its successive values increas-

ing along the curve bM , according to the natural law of growth, that is to say, very nearly in the same way as an amount invested at 7 % compound interest. The estimated value allowed by the Insurance Companies will be cb' , which is far higher than cb , for the curve $b'M$ is the line of increase of the capital at 3 %, and the curves of increase approach more nearly to the line OM , the lower the rate is.

The estimated value calculated for the standards is, like that for the copsewood, higher than the intrinsic value; because the estimated values must be considered as representing the present value of a future profit.

Indeed, the insurance of woods, forests and plantations can only be considered as assurance of a future profit.

Comparison of these Methods. — In order to compare the results obtained by these various methods, M. Lécaille has calculated on each system the value for every age of a hectare of copsewood, which is worth 317 frs. at 33 years. For the purpose he has calculated by means of the formula $y = f(x)$, the value y at the age x of a forest giving at the age n a yield R . If t is the rate of interest, T the rate of capitalisation of the forest (7 %), F the value of the land:



By the method of valuation in proportion to the age of the forest, $f(x) = x \frac{R}{n}$.

By the Insurance Companies' Method, $f(x) = x \frac{R}{n} \left(\frac{1}{1+t} \right)^{n-x}$

By the Annuities Method, $f(x) = \frac{R}{(1+t)^n - 1} [(1+t)^n - 1]$.

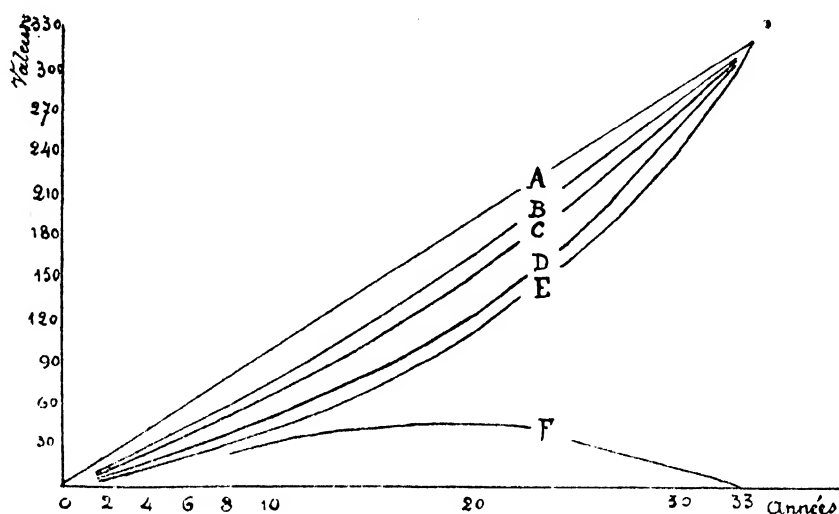
By the Foresters' Method, $f(x) = \frac{F+R}{(1+T)^{n-x}} - F$.

Thus he arrived at the following table in which the calculation has been made to the nearest quarter, the rate of interest taken being 3 %.

Values of a hectare of Coppewood worth 317 frs. when 33 years old.

Age	Proportional Value	Insurance Companies' Method	Difficulty in Regulation	Total of the Two Preceding Columns	Annuities Method	Foresters' Method
1	9.50	3.25	3.50	7.75	5.25	8.25
2	19.25	6.50	6.75	13.25	10.75	5.50
3	28.75	10.25	10.00	20.25	16.25	8.25
4	38.50	14.25	13.25	27.50	22.25	11.75
5	48.00	18.25	16.25	34.50	28.25	15.25
6	57.75	22.75	19.00	41.75	34.50	18.75
7	67.25	27.50	21.75	49.25	41.00	23.00
8	77.00	32.50	24.50	57.00	47.50	27.25
9	86.50	38.00	27.00	67.00	54.50	32.00
10	95.25	43.50	29.00	72.50	61.75	36.75
11	105.75	49.75	31.25	81.00	69.25	42.00
12	115.50	55.75	33.00	88.75	76.75	47.75
13	125.00	62.75	35.00	97.75	84.75	53.75
14	134.75	70.25	26.25	106.50	93.00	60.25
15	144.25	77.75	37.50	115.25	101.50	67.00
16	154.00	85.75	38.50	124.25	110.25	74.75
17	163.50	94.25	39.25	133.50	119.50	82.25
18	173.25	103.25	39.75	143.00	130.00	90.75
19	182.75	113.00	39.75	152.75	138.75	99.75
20	192.50	123.00	39.75	162.75	148.75	109.25
21	202.00	133.75	39.50	173.25	159.25	119.25
22	211.75	145.25	38.50	173.75	170.25	130.75
23	221.25	157.00	37.25	194.25	181.25	147.50
24	231.00	169.50	35.75	205.25	193.00	155.25
25	240.50	182.75	33.75	221.50	210.00	169.00
26	250.25	196.75	31.25	228.00	218.25	183.50
27	259.75	211.25	28.50	239.75	230.25	199.00
28	269.50	226.75	25.00	251.75	243.75	215.50
29	279.00	243.25	21.00	264.25	257.50	233.25
30	288.25	260.25	19.25	279.50	271.75	252.25
31	298.25	268.50	11.75	290.25	287.50	272.50
32	308.00	297.50	6.25	303.75	301.75	297.00
33	317.50	317.50	—	317.50	317.50	317.50

The comparison becomes more striking when we follow M. Lécaille and represent the values obtained in the following diagram.



Explanation.

- A. — Method of Valuation in Proportion to the Age of the Forest.
- B. — Insurance Companies' Method, including Difficulty in Regulation.
- C. — Annuities Method.
- D. — Insurance Companies' Method.
- E. — Foresters' Method.
- F. — Difficulty in Regulation.

As our authority remarks, in order that by the method of valuation adopted fair compensation may be given for the loss suffered, the value at date of fire estimated, at compound interest up to the age for felling, increased by the value of the natural reproduction, should be equal to the yield of the cutting, so that $f(x) = (1 + i)^{n-x} f(x) + f(n-x)$. In one word, this method should compensate for the loss called by the Insurance Companies "Difficulty in Regulation."

The annuities method alone offers this advantage.

We see by the diagram that the values arrived at by the annuities method are not the same as those given by the Insurance Companies' method, increased by the value of the difficulty in regulation, but are slightly lower. This is because all these values are estimates only and depend essentially on the method of calculation adopted. The first is a function of $(1 + i)^x$ the second of $(1 + i)^x$ and $\frac{x}{n}$.

When the value before the fire has been fixed, the loss is arrived at by deducting from that value the salvage immediately realisable. It is

generally supposed, but M. Lécaille considers it an error, that the expense of cutting back is compensated by the value of the wood, in the case of forests of some age. With the present high price of labour such compensation is not possible and the costs of cutting back generally exceed the profits, in the case of young copses burned. It must be considered further that the cutting back must be done immediately after the fire and not at the usual season of cutting wood.

§ 3. INSURANCE COMPANIES' TARIFF.

The tariffs vary with the different companies or societies. We give, by way of example, those adopted by the Companies belonging to the General Syndicate of French Fixed Premium Fire Insurance Companies.

Net (1) Annual Premiums for an amount of 1,000 frs.

Broad Leaved Trees	{	More than 25 years old	0.40
		25 years old or under	0.75
Conifers	{	From 1 to 10 years old	10.00
		" 10 " 15 " "	5.00
		" 15 " 30 " "	3.50
		" 30 " 50 " "	2.50
		50 years old and over, {	
		Mixed with younger trees . . .	1.50
		Not mixed	1.00

To these figures must be added the taxes, and, for the first year, the costs of the policy and 55 centimes a year for "registration expenses."

For this tariff, account is only taken of the dangers inherent in the nature of the forests themselves, without considering the other circumstances which may have an influence on the origin or development of the fires (the situation of the forests in the neighbourhood of houses or not, in dry or rainy regions, their division by means of large firebelts, or the absence of such division).

§ 4. CLAUSES OF THE INSURANCE POLICY.

These clauses are of two kinds : those for fire insurance generally and the special clauses for forest insurance.

Among the first, M. Lécaille only mentions that styled "the rule of proportion", which is as follows : "If expert examination shows that at the moment of the fire the value of the objects insured exceeds the

(1) That is free of taxes.

amount assured, the policy holder is his own insurer for the surplus and must bear his proportion per franc of the loss." This clause makes it necessary to insure for the maximum value the forest may acquire during the period for which the policy is taken out.

Let us now pass to the most interesting of the special clauses of forest insurance.

(A) *Copsewood*. — The policy holder is bound immediately to make known any change he makes in the organisation of the forest, under pain of forfeiting all claim to compensation in case of fire.

The Company will in no case be responsible for damage to heaths, furze, moors or what it has been agreed to call undergrowth.

In case of fire, experts shall estimate at the current rate the market value of the copse as if it had attained the usual age for felling. They shall divide this value by the number of years of the forest management and multiply the result by the age of the coppice burned. The value thus arrived at should properly only be received at the date on which the policy holder would receive the price of the wood cut, but if the Company pays the claim in cash, if the forest burned has not yet reached the age for felling, this value can be reduced by a discount of $3\frac{1}{2}\%$ compound interest. This discount shall be calculated for as many years as each parcel burned requires to attain the regular age for felling.

In case of disagreement in regard to the valuation of the loss, the final settlement shall only be made in the month of September of the year immediately following the loss.

(B) *Standards*. — To estimate the damage to standards, the experts shall determine: 1st. the average age at which the trees are felled; 2nd. the age and total value for each age of all the trees damaged, as if they had reached the above age for felling without suffering from fire; 3rd. and finally, the loss in value also for all the trees of each age there may be at that date. The loss will be the difference between these two valuations and the compensation must be fixed after deduction of $3\frac{1}{2}\%$ compound interest per year.

(C) *Restocking*. — Restocking, when stocks have been killed by fire, will be calculated at the rate of two plants for one, planted between the old stocks as usual, without uprooting the latter.

(D) *Insurance of Difficulty in Regulation* — To fix the loss the fire may cause in difficulty in regulation of the copses, the experts will fix the price they have established per hectare of complete growth and will deduct therefrom: 1st. the claim already fixed for the loss in cousewood increased by the interest from the date of the fire up to that of the usual cutting; 2nd. the value the natural reproduction will have attained at the usual date of cutting, less the cost of cutting back, as if the natural reproduction were again burned at that date. The remainder after these deductions will be the amount of the loss, on which discount of $3\frac{1}{2}\%$ compound interest is calculated from date of the fire up to that of the ordinary cutting, since the claim is paid in cash.

(E) *Conifers*. — Seeds and seedlings of less than five years' age are not insured.

(F) *Miscellaneous Clauses*. — In forests not consisting of conifers a tenth part of scattered conifers will be allowed, without extra premium.

Finally, it is expressly agreed that the Company only insures what is above the soil at the height of the ordinary cutting and does not compensate for loss of root stocks, which it does not insure.

§ 5. RESULTS OF FOREST INSURANCE.

(A) *Copsewood*. — The premiums paid for insurance of cousewood, including the special risk of difficulty in regulation, capitalised at the same rate as that contemplated in the insurance contract during the whole period of forest management, amount to about 4 % of the value of the wood when cut.

This is too high a charge in view of the small risk of fire and the generally insignificant compensation due for loss through fire.

(B) *Conifer Forests*. — Let us suppose a hectare planted with Austrian pine, felled at 33 years; if insured in the cheapest way, that is with five years' policies, the claims paid on the Insurance Companies' method will be as follows, supposing the hectare completely destroyed :

The first year	the maximum compensation will be	12.80
» second » » » » »		26.50
» third » » » » »		41.20
» fourth » » » » »		56.80
» fifth » » » » »		73.45

The financial results of the felling are shown in the following table :

Period	Amount Assured	Premium per cent	Annual Premium	Capitalised Premium		Maximum Claim
				In the Period	From the Start	
From 0 to 5 years	73.45	11.046	0.80	4.45	4.45	73.45
" 5 " 10 "	174.50	11.046	1.95	10.80	15.95	174.50
" 10 " 15 "	311.00	5.546	1.70	9.45	27.90	311.00
" 15 " 20 "	492.35	3.896	1.90	10.55	42.90	492.35
" 20 " 25 "	730.90	3.896	2.85	15.80	65.60	730.90
" 25 " 30 "	1,041.75	3.896	4.05	22.45	98.55	1,041.75
" 30 " 33 "	1,272.50	2.796	3.00	13.05	125.10	1,272.50

Thus in the case of conifers, about 10 % of the value of the yield of wood when cut must be utilised for insurance.

Practically the insurance will be even higher in proportion, for, in M. Lécaille's calculations, no account was taken of policy and registration expenses and he supposed the insurance to be limited to the amount strictly necessary.

The results are not more satisfactory for the Insurance Companies which refuse so to say systematically to insure conifers and generally only undertake the risks for broad leaved forests when they are obliged to for commercial reasons.

These poor results are due to the adoption of ill-considered tariffs which prevent the insurance of good risks which alone could give profits.

In order that the insurance of forests, woods and plantations against fire may develop and become habitual like the insurance of other estate, real and personal, the insurance, while giving the insurers legitimate profits, should compensate the proprietors for the greater part of their losses, without their having to pay too high claims.

In this connection, M. Lécaille makes the following suggestions.

First the tariffs should be established by regions and vary with the regions. If the Insurance Companies have recognised the necessity of adopting higher or lower tariffs according to the regions for ordinary property, such a necessity is the stronger in the case of forests.

The insurance premiums further vary with each region. They are higher where the population is least dense, and are in proportion to the more or less effectual assistance that can be given in case of fire. A similar difference should be made, in the opposite sense, in the case of forests. The tariffs should be higher the nearer the forests are to towns, that is to say the more they are frequented by visitors.

The premium should also be affected by the neighbourhood of railways, charcoal kilns etc.

Finally in fixing the tariffs account should be taken of the division of the forests by wide fire belts or the absence of such division.

The statistics of forest fires collected would allow of the fixing of the tariffs on secure bases.

On the other hand, the Companies should make the following changes in their contracts :

(1) They should adopt the annuities method for calculation of the value of the forests that have as yet no market value, but of which the value of the yield from the cutting is known (copsewood).

(2) They should repay the costs of labour, and purchase of plants and pay the rental value of the soil with interest for wood that has as yet no market value and the future value of which is uncertain (young plantations).

(3) They should apply the method adopted in the case of the standards to forests that have a market value on the day of the fire.

(4) They should no longer assume that the cost of cutting back is compensated by the value of the yield, in the case of young copsewoods

and plantations and should take account of the expenditure, when it exceeds the value of the produce.

(5) They should undertake, for extra premiums, the risks of restocking and of the leaf litter.

Till these improvements have been agreed to and as long as the tariffs are not fixed more in accordance with real conditions, forestry insurance can only be considered as a palliative in anticipation of an almost certain event, and only those forest proprietors will continue to insure who are especially exposed to the risk of fire.

GREAT BRITAIN AND IRELAND.

MUTUAL CATTLE INSURANCE IN ENGLAND AND WALES.

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INTRODUCTION.

In the *Monthly Bulletin of Economic and Social Intelligence* for October, 1914, appeared an article describing the "Insurance of Pigs in England and Wales" by means of the numerous village organisations generally known as Pig Clubs. It was there shown that there were over 1,000 clubs in existence for the insurance of pigs and that these clubs had been formed almost entirely on the initiative of the villagers and small pig-keepers in the country districts, by whom they continue to be managed for their mutual benefit. Similar clubs exist for the insurance of cows and young cattle but they are not nearly so numerous. A few clubs in addition exist solely for the insurance of horses, while several of the clubs which insure cattle deal with horses as well.

For our present knowledge in respect to the different varieties of these insurance clubs we are, to a very large extent, indebted to the careful and painstaking researches of Sir James Wilson. The Board of Agriculture and Fisheries through him have done most valuable work in investigating the history and experience of a number of the existing clubs and have also collected and published valuable statistics in regard to them. The experience which has been gained over a number of years by the most successful of the old established clubs is naturally of the greatest service in enabling assistance and advice to be given to those who may contemplate the formation of similar institutions in districts where previously no club existed. As a result of the knowledge obtained in this way the Board of Agriculture have issued Model Rules and explanatory notes for the guidance of those wishing to start new clubs. Throughout the pages which follow constant reference is made to the publications of the Board of Agriculture and we wish fully to acknowledge the extent to which we are indebted for our information.

The cow clubs are, as far as can be ascertained, quite as old established as the clubs insuring pigs which were described in the earlier number of the *Bulletin*; in fact the oldest known club is the Cow Club at Mawdesley in Lancashire, which was founded so long ago as 1807. If we substitute cows for pigs, a good many of the remarks in the previous article descriptive of the working of these clubs will be equally applicable to the class of society now under consideration. For the benefit of those readers who have not access to the former article, however, it may not be out of place to give a brief description of the general methods of working. The statistics and the figures which relate to such matters as death rate, insurance contributions, compensation, etc., are naturally quite different and must be considered separately.

§ 1. COW CLUBS: OBJECT AND SCOPE.

We shall confine ourselves to dealing with the form of organisation known as a Cow Club, as this is the only method of mutual cattle insurance at present in operation in the country of sufficient importance to be considered at length. It should be noted that in these clubs insurance is practically confined to milking cows and calves; fattening animals and young store stock are not dealt with except in the case of a very few and exceptional instances. In regard to horse insurance we shall only include those cases where this branch of work is dealt with in the same club as cattle insurance.

As in the case of the pig clubs, the cow clubs also are generally confined to a single parish or at most to one or two neighbouring parishes. Their object is to secure their members against the loss of their animals through disease or accident by creating a fund built up from small regular insurance contributions, paid by the members in respect of each animal insured. The exact amount of the contributions varies a good deal in the different clubs, as do the arrangements for covering the expenses of management, and we shall deal with these matters rather more fully later on. When an animal dies the owner is entitled to receive compensation from the funds. It is practically a universal provision that the club shall not be responsible for giving compensation in the case of any accident or death caused by wilful negligence on the part of the owner. This compensation is usually calculated in proportion to the value of the animal and is nearly always limited to a maximum amount, say £10 or £12, the amount payable generally being some fraction, say four-fifths or three-quarters, of the full market value. The affairs of the club are in the hands of a Committee elected annually by the members and there are as a rule one or more officers known as Markers or Stewards. It is their duty to inspect the animals which are offered for insurance, and if passed as being sound, to brand them with the Society's mark. The valuation in the case of animals which die is entrusted generally to the markers or to a small sub-committee consisting of the marker and two or three committeemen. Practice varies in respect of the carcases of animals which die. A frequent, and certainly the best, plan is for this to be taken over by the society and sold for what it is worth. Generally its value is only what the hide will fetch.

Some clubs have arrangements for an Annual Dinner. These dinners in country villages doubtless have an excellent effect in keeping the members together and bringing all of them at least once a year into direct touch with the affairs of the club. It seems unwise, however, to charge any of the expense of such a dinner to the funds of the club and, in those cases where dinners are held, the members would often be able to insure their animals at a considerably lower rate if they would consent to having a separate dinner fund.

§ 2. DISTRIBUTION.

There are reported to be at least 157 of these societies for the co-operative insurance of cattle. They are distributed over 15 counties, Lincolnshire having the greatest number, namely 56 societies, and the next two being Derbyshire with 21, and Cheshire with 13. Forty-six were founded before 1860 and so have been at work for more than 50 years.

§ 3. THE PREES COTTAGERS' COW CLUB.

It may be the most satisfactory way to convey a good idea of the system on which these clubs work to describe in some detail one of those which is most successful, and the Prees Cottagers' Cow Club has been selected, the particulars which follow being taken verbatim from the publications of the Board of Agriculture. This club is one of the larger clubs, but the general method of working which has here been so satisfactory does not differ in any material way from the system which is followed by the great majority of the clubs.

"It was formed in 1838 and in 1911 it had 179 members and insured 453 cows and 84 calves. During the previous 10 years it had paid insurance compensation on 91 cows and 17 calves, and the average death-rate for that period was 2.1 per cent per annum. In its best year the deaths were only .9 per cent, and in its worst year 3.3 per cent. Until 1910 it paid the market value not exceeding £10 of any insured cow that died from disease or accident, but in that year the maximum payable was raised to £12.

"The members are almost entirely small holders or cottagers. The affairs of the Club are managed by a Committee of seven members, elected annually, and by a Secretary, a Treasurer, and four Stewards. The schoolmaster, who has held the post of Secretary for more than thirty years, receives a small remuneration. The only other charges paid by the Society, besides printing, stationery, etc., were 1s. paid to the Steward on the death of an insured animal, 1s. 6d. paid to an Advisory Committee assembled to value a sick animal, and 1s. 9d. paid to the ordinary Committee when specially summoned and the total expenses of management averaged only £6 9s. per annum, or 3d. per animal insured. Each Steward has an area assigned to him, within which he marks any animal a member may wish to insure in accordance with the rules. He has to satisfy himself that the animal is sound; then he brands it on the horn or hoof with the Society's brand, and enters its description with the name of the owner in his book. When an insured animal falls ill or meets with an accident, the Steward is sent for to value it and to see that all that is possible is done to cure it,

and generally calls in an ex-steward or member of Committee to assist him in his duty. He receives from the owner 3d. for each animal marked, and from the Club 1s. for attendance at each quarterly meeting. There is no difficulty in getting good experienced men to accept the responsible office of Steward, and the valuations are rarely disputed either by the owner or by the Society.

"A member, besides paying an insurance contribution of 1s. per quarter for each cow and 9d. per quarter for each calf insured, formerly had to pay an entrance fee of 1s. for each cow and 6d. for each calf, and an annual subscription of 2d. per animal towards management expenses; so that his total annual payments per cow, after payment of the entrance fee, amounted to 4s. 2d. He is liable to a levy of so much per animal insured, should it become necessary in order to find funds to pay for exceptional losses, but no such levy has had to be made for many years, and with a reserve fund of £1,040 it is very improbable that any levy will ever become necessary. When an insured animal falls ill, the owner must at once call in the Steward, and is bound to use every means in his power for its recovery at his own expense. If the animal dies, the hide and carcase belong to the Society, which has contracted for the sale of all carcasses at the price of 15s. each."

In view of its excellent financial position, the Society has recently resolved to remit the contribution from members towards management expenses and to reduce the insurance contributions for cows in the case of members of not less than ten years standing.

§ 4. STATISTICS.

In the accompanying Table of Statistics some of the leading figures are given for a proportion of the clubs in existence, these having been collected by the Board of Agriculture. Many of them are in out-of-the-way villages and the majority are not registered, so that it is difficult to collect complete figures from them. Of the 157 clubs known to be in existence particulars for the year 1913 have been obtained from 89 unregistered and 19 registered clubs and these are given separately in columns 1 and 2. Column 3 contains the average figures for the years 1911-1913 for an average of 88 of the registered and unregistered clubs, taken together. These figures are useful as representing the combined experience of a considerable number of clubs over three years.

Statistics of Cattle Insurance Clubs in England and Wales.

Particulars	1913		1911-12-13 (average of 3 years)
	Un-registered Clubs	Registered Clubs	Registered and Unregistered Clubs
Number of Clubs for which Statistics are available	89	19	88
Total Membership	2,997	1,370	3,804
Total Number of Animals Insured.	6,417	4,443	9,882
Number of Animals on which claims were paid	158	92	257
Percentage of Insured Animals which died	2.46	2.07	2.6
Total Amount of Insurance Contributions and Levies	£2,008	£859	£2,540
Average Total Income per Animal Insured.	7s. 5d.	5s. 1d.	—
Total Amount paid on Claims	£1,480	£875	£2,324
Average Amount actually Paid per Animal which died	£9 7s. od.	£9 10s. od.	£9 1s. od.
Average Total Expenditure per Animal Insured.	5s. 10d.	4s. 6d.	—
Total Amount of Reserve Funds	£7,306	£4,563	£10,357
Average Amount of Reserve per Club	£82	£240	£118
Average Amount of Reserve per Animal Insured.	£1 3s. od.	£1 0s. od.	£1 1s. od.
Number of Years Average Losses in hand	4	4 $\frac{1}{2}$	4

Of the societies reporting at the end of 1913, 10 societies had more than 100 members and several had less than 20, the average over 116 societies being 39 members per Society. They insured an average of 94 cows and calves. Six societies insured more than 300 animals each and several less than 20. The average number of animals insured per member was only 2.5 so it is clear that the great majority of the members must be small men insuring only a few animals apiece.

The largest society and one of the most successful is that at Whixall in Shropshire which was founded in 1842 and now has 298 members, insures 1,395 cows and calves and has a reserve fund of £1,341.

§ 5. REGISTERED CLUBS.

Considerably fuller statistics are available for the registered societies and it may be valuable to study in greater detail the results of their experience for the last three years taken together.

The Casualty Rate. — These societies all pay insurance claims on insured cows or calves which die or have to be slaughtered in consequence of any disease or accident. According to the experience of these three years, for an average number of 4,533 animals, a well managed society in healthy surroundings may expect a death-rate of about 2.4 % per annum.

Amount Payable per Casualty. — The practice of societies in this respect varies considerably. Some pay the full value of the animal at the time it dies or falls ill, subject to a maximum, others only pay a certain proportion of its value, such as five-sixths or four-fifths. From three years experience it appears that a society may expect to have to meet a net loss of about £8 10s. per animal that dies, this being a net loss of 4s. 1d. per animal insured.

Amount of Premium Paid. — For an average over three years of 4,333 animals insured, an average of £916 was received in insurance contributions and levies from members, this being an average of 4s. 1d. per animal insured. That is to say, the income from contributions practically equalled the net loss, leaving as clear profit the interest received from the invested reserve funds.

Management Expenses. — These registered societies are required to keep a separate account of the insurance fund and of their management expenses. Thirteen societies report their cost of management for the year 1913 as £84 of which £62 was spent on salaries. As these societies insured among them 4,033 animals, the management expenses averaged only 5d. per animal per annum. This very small expenditure on administration shows how economically these clubs are managed and is due chiefly to the fact that the members of committee give their time and trouble without remuneration, and that the secretary and markers are content with quite small salaries.

§ 6. MODEL RULES.

As stated at the beginning of this article the Board of Agriculture after studying the system of working of the most successful existing clubs, have now issued sets of Model Rules for the use of those who may wish to form fresh clubs. Alternative sets have been prepared for registered and unregistered rural co-operative cow insurance societies. In accordance with the experience summarised above it is suggested in these rules that

*the members should pay an insurance contribution of 5s. per annum and a management contribution of 1s. per annum per animal insured. In return it is considered that a club adopting these rules will be in a position to pay compensation on each insured animal that dies, reckoned at four-fifths of its value at the time it fell ill, up to a maximum of £12 in each case, for it is expected that its average casualty-rate will be, on the experience of existing clubs, about $2\frac{1}{2}\%$ per annum; and the average amount payable per animal which dies, less than £10. If this scale of charges is adopted a new club might hope, with careful management, not only to pay its way but gradually to build up a reserve fund. Such a fund would not only be a safeguard to the members against their ever having to make a levy amongst themselves to meet the losses of exceptionally bad years, but might eventually also enable the rate of insurance contributions to be reduced after an adequate reserve had been accumulated.

CONCLUSION.

Various writers on co-operation have, from time to time, laid special stress on the desirability of societies, working on lines such as those on which these English cattle insurance clubs work, to form some kind of a federation amongst themselves, so that not only could the individual members of a society protect themselves against loss by combining with one another, but that the different societies might also club their liabilities together in the same way. It will have been gathered from what has been written in regard to both the cow and the pig insurance clubs that they have been content to carry on their affairs in their own way, without very much regard to other similar clubs which might be in existence, and each to work out for itself its own salvation. No federation exists between the clubs but, since their investigation into the general position, the Board of Agriculture have made arrangements with the Agricultural and General Co-operative Insurance Society for a system of reinsurance of part of the risks of the local clubs. This Insurance Society has its headquarters in London, undertaking farmers' and general agricultural insurance in all parts of the country, and it offers very favourable terms to any local clubs who may care to re-insure part of their risks with a large organisation.

In conclusion, and if anything further is needed to emphasise the benefits conferred on their members by these small cattle insurance clubs, we think we cannot do better than quote the concluding paragraph of an article on the Soham Cattle Club, which appeared in a recent number of the *Journal of the Board of Agriculture*. This is one of the few clubs which also insures horses, but the measure of success which has attended its work over a period of 40 years is very typical of the great majority of these little associations.

" The fact remains that this society of small holders, entirely dependent on its own resources and management, has for many years insured its members' cattle and horses from death by disease and accident from a fortnight old up to any age, on payment of an insurance contribution never exceeding 3 per cent. per annum on the amount payable in case of death and of a management contribution of 1s. 4d. per member per annum (equivalent to less than 6d. per animal insured) ; while, if the members had individually insured their animals with an ordinary live stock insurance company, they would have had to pay as premium at least 7 ½ per cent on their dairy cows and 5 per cent. (for animals owned singly) on their farm-horses in the prime of life, while the rates charged on the very young or very old animals, now insured by the Club, would have been prohibitive, and an extra charge would have been made to cover foaling risks. Meanwhile the Club has accumulated a reserve fund, which now amounts to £534. It thus affords an excellent example of the success of the co-operative insurance of live stock, worked by the small stock-owners themselves. "

MISCELLANEOUS INFORMATION RELATING TO INSURANCE AND THRIFT IN VARIOUS COUNTRIES.

FRANCE.

CENTRAL FIRE INSURANCE INSTITUTE OF THE CENTRAL UNION OF FRENCH FARMERS' SYNDICATES IN 1914. — On the 31st. of December, 1914 the number of Regional Institutes affiliated to the Central Institute was 15, and the number of local organizations affiliated to them was 2,860, or 109 more than in the preceding year. The amount assured by them was 688,032,013 fr., showing an increase of 87,441,800 frs. and the number of policies was 59,756, showing an increase of 6,417. The average amount assured per local institute was 240,570 frs., as against 218,317 fr. in 1913; the number of policies per local institute was 20.88, as against 19.2 in 1913. Finally, the average amount per policy was 11.52 frs., as against 11.26 frs. in 1913.

The situation of the Central Institute on December 31st., 1914 was as follows:

Share in the risks assured: 146,663,506.81 fr., or 21.32 % of the total, as against 21.12 % in 1913. This amount represents annual contributions of a total value of 150,331.87 fr.

The balance sheet for December 31st., 1914 showed the following figures:

Credits.

General Society, Capital in Deposit	2,728.08
Savings Bank.	13,628.97
Bank of Burgundy and Franche Comté.	420.—
Bank of the South East.	1,698.05
Securities in Deposit (Purchase Price).	123,715.60
South East Mutual Credit Institute (Current Account) . .	23,045.23
" " " (Loans Account) . .	52,625.50
Balance Due on Interest Account, 1914	360.—
	<hr/>
	218,221.43

Debits.

Regional Institutes	23,772.22
Staff	1,475.—
Provision to meet Claims in Course	7,200.—
Regulation Reserve Fund	30,000.—
Floating Reserve Fund	60,168.60
Reserve Fund to meet Fall in Value of Securities.	8,025.—
	<hr/>
	130,640.82

Credit Balance for the Year : 87, 580.61 fr.

The Profit and Loss Account for the year 1914 showed the following figures :

Revenue.

Contributions for the Year.	147,093.01
Interest on Deposits.	6,317.42
	<hr/>
	153,410.43

Expenditure.

Claims of the Year	52,942.21
Claims of Preceding Years	141.14
Costs of Inspection	348.90
General Expenditure	5,197.57

Provision to meet Claims in Course :

Regional Bank of the East.	6,000	}	7,200.—
Regional Bank of Burgundy and Franche			
Comté	100		
Pyrénées and Landes Regional Bank	1,100		
			<hr/>
			65,829.92

Credit Balance for the Year : 87,580.61 fr. :

Of this 25 % or 21,895.15 fr. was placed to the reserve funds of the Central Institute, and 75 % or 65,685.46 fr. was returned to the regional banks as rebate in proportion to the gross amount of their contributions. The amount of 21,895.15 fr. placed to the reserve funds was divided as follows :

10. To the Floating Reserve Fund 10,000.00 frs.
20. To the Reserve Fund to meet Fall in Value of Securities 11,895.15 frs.

Consequently, the amounts of the various reserve funds reached the following figures :

Regulation Reserve Fund.	30,000.— frs.
Floating Reserve Fund.	70,168.60 »
Reserve Fund to meet Fall in Value of Securities .	19,920.15 »

As the amount of the contributions to the Central Institute increased in 1914 to 147,093.01 fr. and its proportion of the losses through claims (including appraisers' expenses) was 52,942.21 fr., the proportion of these losses to the contributions was 35.99 % as against 29.6 % in 1913. (Taking into account the provision to meet claims in course, the percentage rises to 40.88).

(Summarised from the *Bulletin de l'Union Centrale des Syndicats des Agriculteurs de France*, July, 1915).

SWITZERLAND.

CO-OPERATIVE HORNED CATTLE INSURANCE SOCIETIES OF THE CANTON OF TICINO. — In 1914, the Co-operative Horned Cattle Insurance Societies, subventioned by the Canton and the Federation, were 48 in number as against 44 in 1913. The number of head of cattle insured was 3,093, and their value 2,099,474 frs. The premiums paid amounted to 26,718 frs. and the grants from the Canton and the Federation together amounted to 10,622 frs.

In a number of more than 3,000 head, insured in round numbers for 2,000,000 frs., there were 194 cases of death, for which 33,729 frs. were paid in claims, the total estimated value of the cattle dying being 58,383 frs.

Besides the claims on account of death, there were 15 cases in which claims were paid for depreciation in value, amounting altogether to 607 frs.

The premiums vary from 1 fr. to 3 frs. per cent of the assured amount. We may say that the average premium is about 1.50 frs. per cent. of the value assured. The expenses are thus insignificant, above all when we remember that private insurance societies charge from 10 frs. to 15 frs. per head of cattle. Insurance in these co-operative societies never costs so much.

(Summarised from the *Agricoltore Ticinese*, Locarno, May 15th., 1915).

Part III: Credit

ARGENTINE REPUBLIC.

THE NATIONAL AGRICULTURAL BANK.

SOURCES:

- EL BANCO AGRÍCOLA DE LA NACIÓN (*The National Agricultural Bank*). *Revista de Economía y Finanzas*, N. 9. Buenos Ayres, July 5th., 1915.
- EL PROYECTO DE BANCO AGRÍCOLA: ALGUNAS OBSERVACIONES (*The Proposed Agricultural Bank: Some Remarks*). *La Argentina Económica* No 115. Buenos Ayres, July 11th, 1915.
- FRERS (Emilio): El Banco Agrícola: Proyecto de ley (*The Agricultural Bank: Bill*). Buenos Ayres, 1915. Imprenta P. Gadola.
- DO.: Banco Colonizador de la Nación Argentina: Proyecto de ley (*The Argentine National Colonisation Bank: Bill*). Buenos Ayres, 1915. Imprenta P. Gadola.
- MENSAYES Y PROYECTOS DE LEY DEL PODER EJECUTIVO NACIONAL, 1911 (*Memoranda and Bills issued by the National Executive Authority*, 1911). *Boletín del Ministerio de Agricultura*. Supplement to the issue of June 1911. Buenos Ayres.
- THE ECONOMIST, Nos. 3,754 and 3,757. London: August 7th. and 28th., 1915.
- LA NACIÓN. Buenos Ayres, July and August, 1915.

In the Argentine Republic, a country predominantly agricultural and still in process of colonisation, the want has long been noted of some organisation, either official or private, which, by providing the farmer with credit, would help him to play his part in the development and encouragement of the agricultural industry. Of this we have already had occasion to speak several times in this *Bulletin*, and, accordingly, we shall not repeat what we have said on those occasions (1).

It will suffice to remind the reader that one of the principal causes of the agricultural depression which for some time past has been noted in

(1) See the issues of August 1911; April and June 1912; July and October, 1913, and June 1915.

the country, is the want of circulating capital, especially amongst the farmers, aggravated by a defective credit system. Direct agricultural credit, it may be said, does not exist. Between the farmer and the bank there is a series of intermediaries — forestallers, warehousemen, etc. — whose methods in the end affect the crop, since they form a system of usury, which ruins the farmers in bad years.

The National Agricultural Bank, which has just been established with the object of providing a suitable organisation for agricultural credit and of furnishing the farmer at moderate rates with the circulating capital which he requires, will, to this extent, supply one of the needs most strongly felt by the rural population of the Argentine Republic.

Before proceeding to describe the organisation and objects of this new credit institution, it will be desirable to indicate briefly the proposals which preceded it, in order to be able to compare the principles followed in those proposals with those upon which the newly-established organisation has been based.

§ I. PREVIOUS BILLS AND THE BANK ESTABLISHED.

Notwithstanding its importance, it may be said that the question of agricultural credit did not begin to be discussed by the public authorities until the year 1899. The Ministry of Agriculture had been established the year before by the Convention which revised the constitution of the Republic, and Dr. Frers, who was the first Minister of Agriculture, appointed a Commission to study agricultural credit guaranteed by pledge or personal security, the establishment of co-operative societies or companies for the purpose of providing it, and the amendment and extension of the legislation relating to the matter.

From that time onwards various bills have been submitted to the discussion of the Argentine Parliament, with a view to finding the precise form of rural credit most suitable to the conditions of the country. Amongst these deserve to be mentioned that of Senator Uriburu on rural credit societies, that of Sr. Vivarés for the establishment of a Rural Bank, those of Srs. Lahitte and Martínez on co-operative societies, and particularly those presented by the ex-minister, Sr. Lobos, and by Sr. Frers (of whom we have spoken above) on the establishment of an Agricultural Bank.

But in tracing this slight sketch of the parliamentary efforts in favour of agricultural credit, it is necessary to mention also, besides the bills noted, the two acts of 1914 on warrants and agricultural pledge (1). By these, in view of the urgency of the question of agricultural credit and of the fact that, on account of the difficulties involved in putting them into execution, or for political or administrative reasons, none of the bills aiming at the creation of a general organisation for rural credit had been passed into law,

(1) See the issue of June 1915 of this *Bulletin*.

the Public Authorities decided to introduce the system of warrants and agricultural pledge, based on the goods and industrial values at the farmer's disposal, in order to stimulate the flow of private capital until such time as a special fund might be available for supplying agricultural credit.

It will be seen, then, that in the short space of sixteen years the Argentine Parliament has been fertile in private members' bills proposing to solve the question in a general manner by various methods (rural credit societies, central banks, etc). and that finally the Public Authorities, not being able to solve the question as a whole in a manner befitting its urgency, took measures which might, at any rate, improve the position of rural credit business.

Though suggested by the previous proposals, the institution proposed by Senator Davila and approved by Parliament has the special characteristic, upon which depend its form and organisation, of being a State institution.

The Bank proposed in 1913 by Sr. Frers (whose bill was one of the most complete) would have had a capital of 100,000,000 pesos, divided into 2,000,000 shares of 50 pesos each. The State was to subscribe half of these shares, the other half being open to subscription by private capitalists ; thus the undertaking would have found itself obliged to offer a dividend and to watch carefully the prices at which its shares were quoted.

This organisation, therefore, was subject to two serious defects, which would have paralysed the efficiency of its working — in the first place, the impossibility of obtaining private capital, absorbed by more profitable investments, and secondly, the too direct influence of the general money market on agricultural credit.

Thus, then, in laying down the lines of the Bank now established, it has been endeavoured to avoid, as far as possible, any such causes of difficulty. Above all, it has been thought desirable that its functions should be in harmony with the requirements of the industry, which it was not only to serve, but to support and encourage. In attempting to organise rural credit, it was not, therefore, a question of promoting a private banking business, a form of credit transactions, the lending of capital for a given industry, but of providing for the development of that industry, enlarging its sphere of action and increasing its profitableness. Thus, then, the proposed Bank was to have for its object the development, by every means, of the agricultural and stock-raising industries, and not that of the banking business.

Accordingly, both by reason of the purpose of the institution and on account of the necessity of removing it from the influence of the fluctuations of other kinds of credit, always dependent upon the conditions of the foreign markets, it was thought fit that the Bank should be established with the character of a State institution, as we shall now see.

§ 2. OBJECT AND ORGANISATION OF THE NATIONAL AGRICULTURAL BANK.

The National Agricultural Bank will have as its principal objects: (a) to encourage the agricultural and stock raising industries and colonisation (1); (b) to promote the organisation of rural co-operative credit societies and agricultural banks in the provinces and national territories, entering into credit relations with these institutions in order to facilitate the development of the operations which form their object. Colonisation will be carried out by the division of lands and their assignment to applicants by sale or on lease.

As general operations of the Bank, the following are indicated :

(1) To discount the bonds of rural co-operative credit societies and agricultural banks ; such discounts to be for a period not longer than three years and at a rate to be agreed upon.

(2) The Bank alone will be empowered to discount agricultural or stock-raising credit instruments presented and endorsed by the institutions which maintain commercial relations with it.

(3) To make loans on mortgage or personal security to farmers and stock-owners, for periods to be agreed upon and at such rates of interest as the Directors may decide.

(4) To grant loans on agricultural warrants or any instrument representing an agricultural or stock-raising pledge (2).

(5) To receive deposits on current account and accept drafts or other payment orders, home or foreign.

(6) To co-operate in the colonisation which the provinces may undertake on the basis of the programme of the Bank, and in accordance with the agreements which it may make with their respective governments.

(7) To undertake the colonisation of the public lands which the Executive Authority may assign to it upon its request.

(8) To issue bonds with the authorisation of the Executive Authority.

(1) Unlike the institution now created and that proposed by Dr. Lobos, whose bill is considered one of the best of the private members' bills, the Bank proposed in 1913 by Sr. Frers would not have included colonisation amongst its objects, this being a function which its author proposed to entrust to another institution (Bill on Argentine National Bank of Colonisation, Journal of the Sitzings of the Chamber of Deputies, 1912, Vol. II, page 186). On this point Sr. Frers expresses himself as follows : " I consider that it is a very grave error to combine in one undertaking a credit institution and a colonisation institution. An agricultural bank and a bank of colonisation have no feature in common except the commercial nature of their constitution. The one is an institution supplying strictly banking credit ; its programme is limited to that. The other can only be called a bank in virtue of the form of its organisation ; its programme has to be of an extraordinary complexity. " Although these arguments were justified inasmuch as the bank proposed by Sr. Frers was strictly *commercial* and lose some of their force as applied to the Bank now established, which is a State institution for the encouragement of agriculture, practical experience will show to what extent these views were correct.

(2) See the issue of June 1915 of this *Bulletin*.

The capital of the National Agricultural Bank will be formed by:
(a) the sum obtained by the issue, to be made by the Executive Authority, of 50,000,000 pesos of public funds at 5 % interest with 1 % sinking fund;
(b) the transfer to it of the real property forming the assets of the National Bank (in liquidation) and the sums resulting from the sale or lease of it (1) In analysing the constitution of the new Bank, some organs of the economic press of the country do not hide the fact that they have little confidence in the result of the loan mentioned, pointing out that it is being issued at the modest rate of 5 % in a market where money costs 8 % and mortgage-bonds at 6 % already exist.

The law which creates the Agricultural Bank at the same time authorises the Argentine National Bank to open a credit in its favour up to 20,000,000 pesos to enable it to begin operations, on the security of an equivalent quantity of bonds of the issue of which we have spoken. The conditions of this guarantee, as well as the rate of interest to be charged upon this credit (which must not exceed 4 % per annum) are to be fixed by agreement between the directors of the two institutions and with the approval of the Executive Authority.

The Agricultural Bank will be administered by a President and six Directors, nominated with the approval of the Senate. The President will enjoy a fixed salary and the Directors will be paid fees proportionate to the number of their attendances in each month. All will be personally and jointly liable for the operations of the bank which they authorise and they will form the Board of Directors of the Bank. Besides its administrative functions this Board of Directors will have the following attributes and duties :

(1) To promote the formation in the provinces and national territories of co-operative credit societies (rural credit societies, agricultural banks), whether local or regional ;

(2) To inspect such institutions and inquire into their rules ;

(3) To provide them gratuitously with such publications and information as may be necessary regarding their organisation, etc. ;

(4) It will be empowered to utilise the credit societies and regional banks which work in accordance with these arrangements, as its own agents in the localities where there are no branches of the Agricultural Bank.

Besides the ordinary forms of leasing and sale, the Bank will be empowered to lease colonisation lots for a period of 10 years under the following conditions: (a) the lessee will undertake the cultivation and exploitation of

(1) The National Bank, as well as the Bank of the Province of Buenos Aires and the Mortgage Bank of that province, failed on the occasion of the shock produced by the Revolution of 1890, owing to defects in its organisation and management. The rapid increase in the value of land in the Argentine of late has caused the liquidation of the old National Bank to result in a surplus. The real property which forms this surplus, and the sums resulting from the sale or lease of it, are to form part of the capital of the Agricultural Bank with which we are dealing.

the lot, on such conditions as the Directors may determine, under penalty of the rescission of the contract ; (b) during the term of the contract, the lessee will not be able to assign his rights without the previous authorisation of the Directors ; (c) the accumulation of lots will be prohibited, except in the case of inheritance ; (d) the rent payable under the lease shall in no case exceed 7 % of the value which the Directors may assign to the land in the deed of contract ; (e) on the expiry of the contract the lessee shall have the option of extending it for ten and five years successively ; if the Bank should have decided to sell the lot, the lessee shall have a preferential right to buy it.

The Bank must establish a branch in the capital of each province and in such other places as the Directors may think desirable.

The law by which it is established provides that the State shall be directly liable for all the deposits and the operations carried on by the Agricultural Bank.

Finally all the operations and contracts to which the Agricultural Bank is a party will be exempt from stamp duty, whatever their nature or the value involved ; in like manner, the Bank will be exempt from the payment of all national, provincial or municipal taxes. The same privilege will be enjoyed for 10 years by the rural credit societies, co-operative credit societies and agricultural banks.

ITALY.

THE WORK OF THE SPECIAL AGRICULTURAL CREDIT INSTITUTES IN 1914.

SOURCES:

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- CREDITO AGRARIO PER IL LAZIO. Relazione sull'esercizio 1914 (*Agricultural Credit Institute for Latium. Report for the Year, 1914*). Rome, R. Garroni, 1915.
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- FEDERAZIONE PER IL CREDITO AGRARIO NELL'UMBRIA: Relazione del Consiglio federale per l'esercizio 1914 (*Federation for Agricultural Credit in Umbria: Report of the Federal Board for the Year, 1914*). Perugia, Tip. Benucci, 1915.

In the present article we shall consider the work done in 1914 by the special agricultural credit institutes, that is to say by the Institutes of regional character authorized by special laws for the granting of this form of credit. The most important of these laws are those of July 7th., 1901, authorizing the savings bank of the Bank of Naples to grant agricultural credit in the Southern Provinces of the mainland of Italy and in Sardinia, and that of March 29th., 1906, which instituted a department for the grant of such credit in connection with the Bank of Sicily. We may also mention the laws of December 21st., 1902, March 31st., 1904 and June 25th., 1906, relating respectively to agricultural credit in Latium, Basilicata and Calabria, etc.

The fundamental principle of this legislation is that agricultural credit is not granted directly to the farmers but through minor local institutes, and by preference institutes of co-operative form, styled in consequence *intermediary organisations* (rural and agricultural banks, agricultural consortiums, people's banks etc.).

Exception is only made in the case of those communes, in which there is no local institute or in which the institute existing does not inspire confidence, or is not working : in such communes indeed loans may be granted with due precautions, to farmers directly.

Italian legislation has followed this system, on the reasonable supposition that only *local institutions* possessing immediate knowledge of the men and the circumstances are in a position to estimate the financial situation of each farmer, especially of the small farmers and, what is of greater importance, to see that the amounts lent are really employed for purposes of agriculture.

Therefore the special agricultural credit institutes carry on active propaganda for the foundation of intermediary organizations, endeavouring to ensure their good working by means of the distribution of model rules, of guides to bookkeeping and inspections. The rural banks, large numbers of which have been founded in recent years in the South of Italy and in the islands, are a result of this propaganda (1). When we show the results of the agricultural credit business in 1914, we shall have an opportunity of pointing out the progress made by them in various regions.

§ 1. THE SAVINGS BANK OF THE BANK OF NAPLES.

The report on the agricultural credit business of the Bank of Naples shows in the first place the continual increase in the number of intermediary organizations ; in fact they increased from 1,750 in 1911 to 1,855 in 1912, to 1,963 in 1913 and 2,080 in 1914 ; but the number of those considered "good", that is to say that can be relied on for this delicate form of credit business, increased during the same period from 868 to 938, and then to 1,044 and to 1,149. These latter may be classified as follows :

(1) The second part of the above report of the savings bank of the Bank of Naples expressly deals with the results obtained by the propaganda in favour of the foundation and organization of the intermediary institutes. The Board provides for this uninterruptedly by means of its own functionaries, and particularly by means of a special inspector, and, in spite of the lack of the spirit of association, of the ignorance of the agricultural majority, of difficulties and scepticism, the results are satisfactory. Last year 73 new agricultural banks were founded in the provinces of the Southern mainland and 46 in Sardinia : altogether 119. Between August, 1909, when the Bank sent out the new model rules for this class of institute, and December 31st., 1914, 396 new agricultural banks have been founded, 242 in the Southern mainland provinces and 154 in Sardinia. In 1914, 24 intermediary institutes were inspected, namely 9 agricultural consortiums, 13 agricultural and rural banks and 2 agricultural loan banks.

Agricultural and Rural Banks	415
Monti "frumentari" and "nummari" in Sardinia . .	288
People's Banks	158
Agricultural Consortiums	130
Agricultural Loan Banks	116
Savings Banks.	15
Mutual Aid Societies.	10
"Monti frumentari"	8
Independent Provincial Agricultural Credit Banks . .	6
Agricultural Credit Societies	3
	<hr/>
	1,149

Of these 1,149 "good" institutes, 130 (120 of which are People's Banks) have credits open to them at the Bank for their ordinary discount business; and as many as 406 are associations with unlimited joint and several liability, largely owing their origin to the assiduous propaganda of the Bank for the constitution of agricultural banks, and scattered all over the Southern provinces and Sardinia: the province of Cagliari comes first with 124 banks, next comes Aquila with 47, then Salerno with 34 and Caserta with 32.

At the end of 1914, 687 institutes had been registered in the register for credits opened, for 26,003,600 frs.; 244, registered for 6,953,000 frs., being agricultural and rural banks, 148, registered for 7,352,000 frs., people's Banks and 93, registered for 8,184,500 frs., agricultural consortiums.

The loans made by the Bank in the above year, not including renewals, amounted to frs. 13,934,159 (3,941,820 frs. out of its own funds and 9,992,340 frs. out of those of the provincial agricultural credit banks). The total amount of rediscounts was 10,933,853 frs., that of the direct loans to farmers 565,758 frs. and the direct discounts for intermediary institutes amounted to 2,434,548 frs. (1).

In thirteen years the agricultural credit department of the Bank of Naples' Savings Bank had distributed 74,000,000 frs., 44,000,000 frs. (58.82%) through agricultural consortiums and 16,000,000 frs. (22.38%) through agricultural banks.

In spite of the difficulties presented by the financial market, the rate of interest has remained unvaried, at 3 $\frac{1}{2}$ %, for the rediscount and direct discount business transacted with the intermediate societies and at 4% for business transacted directly with farmers; the intermediate institutes, for their part, in granting loans have charged interest varying from 3 $\frac{1}{2}$ % to 6%, most usually 5% and 5 $\frac{1}{2}$ %.

(1) With regard to the classification of the credits, it is enough to say that, out of 23,915 loans, 7,791 were for amounts less than 100 frs.; 11,107 for amounts between 100 and 500 frs., and 3,386 for amounts between 500 and 1,000 frs.; that is 93% of the loans and 55% of the total amount represented transactions for less than 1,000 frs.

The rediscounts and direct loans may be classified as under, according to their object :

1. *Loans with Legal Preference.*

	Number	Frs.
For Harvest	522	286,849.20
» Cultivation	7,448	2,880,169.37
» Seeds	3,908	2,454,144.59
» Manure	3,656	775,771.71
» Anticryptogamic Material	2,246	283,280.26
» Food for Metayers and Labourers	26	4,718.85
» Various Purposes	2,386	1,280,693.73
	<hr/> 20,192	<hr/> 7,965,567.71

2. *Loans without Preference.*

	Number	Frs.
For Large Livestock	2,434	1,707,432.50
» Small Livestock	359	109,785.50
» Machinery	622	209,241.15
» Farm Implements.	87	16,037.40
» Dead Stock	34	16,295.10
» Various Purposes	15	12,802.40
	<hr/> 3,551	<hr/> 2,071,594.05

3. *Loans with Preference by Agreement.*

	Number	Frs.
For Large Livestock	2	4,000.00
» Machinery	7	7,993.45
	<hr/> 9	<hr/> 11,993.45

4. *Loans on Deposit of Agricultural Produce.*

	Number	Frs.
On Cereals	150	1,375,015.99
On Wine	13	75,440.00
	<hr/> 163	<hr/> 1,450,455.99

The loans with legal preference represent 69.27 % of the total credit granted to the farmers ; those without preference, 18.02 %, those with preference by agreement, 0.9 % and those on deposit of agricultural produce, 12.62 %.

Of the loans 13,607 for 6,109,991.59 frs. (53.13 %) were granted to proprietors working their farms ; 9,079 for 5,053,733.46 frs. (43.95 %) to tenant farmers ; 846 for 186,108.61 frs. (1.62 %) to tenants by emphyteusis and lastly 383 for 149,777.54 frs. (1.30 %) to metayers.

The direct discount was given in 254 cases, to the amount of 1,889,597 frs., for collective purchases, in 14 cases, to that of 206,237 frs., for collective sales and in 135 cases, to that of 338,714 frs., to make up the capital of the intermediary organizations ; almost all on the proposal of the agricultural consortiums and rural banks, in the proportion of one third and two thirds respectively.

Finally, the total credit granted in 1914 by the Savings Bank of the Bank of Naples was distributed among the various provinces as follows :

Credit Granted to each Province in 1914.

	Amount — Fr.
Foggia	4,842,846.66
Aquila	1,210,542.76
Bari	1,143,001.86
Caserta	1,090,009.98
Lecce	786,736.15
Sassari	755,274.26
Salerno	739,946.73
Teramo	691,861.14
Reggio	527,201.00
Campobasso	420,000.79
Catanzaro	372,415.85
Potenza	274,118.15
Benevento	219,584.08
Naples	208,925.05
Chieti	191,025.61
Cagliari	186,011.76
Avellino	185,249.30
Cosenza	89,408.27

13,934,159.40

Thus the work of the Naples Bank in connection with agricultural credit in 1914 was rather considerable and beneficial, in bringing relief to the farmers in the South and in Sardinia, who had suffered from the prolonged drought that in certain agricultural regions had led to exceptional want.

§ 2. THE AGRICULTURAL CREDIT DEPARTMENT OF THE BANK OF SICILY.

As we know, the grant of agricultural credit in Sicily is entrusted to a special department of the Bank of Sicily, which transacts this business, like the other institutes of the same character, through the medium of other organizations.

Of these intermediary organizations on December 31st., 1914, there were 335 (against 233 in 1913). We may classify them as follows:

Co-operative Agricultural Societies for Production and Labour	133
Agricultural Banks (Societies)	91
Agricultural Banks (Incorporated Bodies)	8
Rural Banks	47
Agricultural Consortiums	20
"Monti Frumentari"	12
Agricultural Banking Institutions	11
People's Banks	4
Agricultural Associations.	7
Co-operative Wine Societies	2
	<hr/>
	335

On December 31st., 1914, these organizations had 58,719 members, the assets of the organizations amounted to 3,673,711 frs. and the assets of the members, whose liability was unlimited, to 283,501,778 frs. The vast majority (270) are societies of collective title. Among the co-operative societies for production and labour, as many as 50, at the end of the year, were working collective farms, leasing an area of 42,449 hectares.

It will be interesting to consider how the agricultural credit organizations are distributed in the island. The following table shows the number of the intermediary institutes receiving credit in the different Provinces in comparison with the number of communes.

Provinces	Communes in the Province	Number of Organizations Receiving Credits
Palermo.	76	62
Messina.	97	28
Catania.	50	24
Caltagirone	13	24
Girgenti.	41	62
Trapani.	20	54
Syracuse	32	31
Caltanissetta.	28	50
	<hr/>	<hr/>
	357	355

Of the 190 communes among which the 335 institutes registered in the register for credits opened were distributed, 99 had each only one intermediary institute, 63 had two, 18 had three, 6 four, 2 five and one had nine and another thirteen.

The credits opened by the Bank to these organizations increased from 17,880,218 frs. on December 31st., 1913 to 18,579,500 frs. on December 31st., 1914. The loans made were 39,286 and their amount was 13,746,159 frs., showing a decrease on the previous years, in the number of loans, of 9,426, and in the amount, of 1,882,471 frs.

This decrease is the result of a succession of bad harvests in the island in recent years ; the consequence has been a certain delay in payments, a tendency to renew loans in their entirety and to unite several loans in one transaction ; thus altering the character of the agricultural credit business profoundly. With the object of preventing these irregularities, the Bank has become stricter in its dealings with the intermediary institutes, and this limitation of the amount of business done has been the consequence.

The direct loans to private persons were 125 and amounted to 52,075 frs. ; the operations conducted with the intermediary institutes were 39,161 for an amount of 13,694,085 frs. (rediscounts to the amount of 9,734,465 frs. and direct discounts to that of 3,959,620 frs.).

The direct and indirect transactions we may distinguish as follows in regard to their object : I. for seeds, manure, anticryptogamic material, cultivation and harvesting, 38,004 transactions for an amount of 9,276,529 frs. ; II. for machinery, implements, live and dead stock, 885 for 510,011 frs. ; III. direct discounts for intermediate organizations, 397 transactions for an amount of 3,959,620 frs.

In regard to the profession or condition of the borrowers, the loans may be classified as follows :

	Number	frs.
Landowners	19,086	4,887,658
Tenant farmers	18,104	4,445,344
Metayers	965	249,031
Tenants by emphyteusis	734	204,506

In 1914 the rate of discount charged by the agricultural credit department was 4 %, while the intermediate institutes generally charged 6 %. The average amount of the bills discounted was 349.89 fr. as compared with 320.83 frs in 1913.

The various provinces shared as follows in the total credit granted in the year :

Provinces	Amount frs.
Trapani.	2,857,712
Palermo.	2,372,194
Caltanissetta	2,135,100
Girgenti.	1,883,491
Caltagirone	1,856,195
Syracuse	1,590,084
Catania	648,819
Messina	402,564
Total	13,746,159

The above summary shows how the assistance granted to Sicilian farmers by the Bank of Sicily is in strict conformity with the duties entrusted to that important Institute by the law.

§ 3. OTHER SPECIAL AGRICULTURAL CREDIT INSTITUTES.

The operations of the other special agricultural credit institutes working in Italy in the year 1914 may be seen in the following table. To make it complete we have included in it also the figures above given for the Banks of Naples and Sicily.

Agricultural Credit Granted in 1914 in Italy in accordance with the Regional Laws.

Balance of Loans at the End of 1913	Name of Institute	Loans to Intermediate Institutes	Direct Loans to Farmers	Total	Balance of Loans at End of 1914
4,626,380.32	Bank of Naples. { out of its own Funds	3,861,119.82	80,700.00	3,941,819.82	3,211,815.46
3,859,378.95	{ out of Funds of the Provincial Banks.	9,597,281.73	485,057.85	9,992,339.58	6,412,703.55
6,729,837.58	Bank of Sicily. { out of its own Funds	8,305,924.58	23,575.00	8,329,499.58	5,192,425.88
3,913,561.45	{ out of Funds of the Provincial Banks	5,388,100.20	28,500.00	5,416,600.20	4,168,712.84
2,387,723.47	Agricultural Credit Institute for Latium	5,195,827.80	86,443.95	6,060,266.95	2,586,870.39
348,827.50	Agricultural Credit Institute, Vittorio Emanuele III — Catanzaro	20,000.00	397,579.50	417,579.50	569,922.00
569,786.27	Agricultural Credit Institute, Vittorio Emanuele III — Cosenza	5,000.00	611,393.60	616,393.60	743,838.42
461,610.00	Agricultural Credit Institute, Vittorio Emanuele III — Reggio Calabria (1)	50,000.10	313,205.00	366,205.10	548,305.00
2,060,892.65	Cagliari "Ademprile" Bank	2,644,570.60	124,243.00	2,768,813.60	3,113,597.92
2,199,926.80	Sassari "Ademprile" Bank	1,604,462.11	1,011,289.11	2,615,951.22	2,931,276.48
1,505,659.45	Provincial Agricultural Credit Bank for Basilicata.	1,161,953.13	1,283,490.70	2,445,443.83	2,505,246.04
	Provincial Agricultural Credit Bank for Liguria.	156,225.29	—	156,225.29	155,549.42
28,062,684.44	Total	37,903,725.36	5,223,472.91	43,127,198.37	32,160,263.40
	Total for the Year 1913			39,796,980.67	
	Balance in favour of 1914.				3,330,217.60

(1) The figures for the Agricultural Credit Institute, Vittorio Emanuele III, Reggio Calabria, are those for 1913, as those for 1914 are not to hand.

There are two other organizations we must mention, the Agricultural Credit Federations for Marche and for Umbria. These Federations were founded in accordance with law n° 7 of January 2nd., 1910 on agricultural credit for Marche and Umbria, with the duty of administering the fund assigned by the law for the grant of agricultural credit in those regions, amounting as we know to 700,000 frs. for Marche and 400,000 frs. for Umbria. But we have no information in regard to the work done by the Federation of Marche, though, with regard to that of Umbria, we know that of the 14 agricultural banks existing in the region, 10 had granted subventions in the form of bills to the amount of 74,354 frs. on December 31st., 1914 (against 28,543 frs. granted by 5 Banks in 1913).

In conclusion, in 1914, more than 43,000,000 frs. or about 3,500,000 frs. more than in 1913, were lent to the Italian farmers by the special agricultural credit institutes alone.

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MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES.

ALGERIA.

APPLICATION OF THE FRENCH LAWS ON INDIVIDUAL AGRICULTURAL CREDIT TO ALGERIA. — Three Decrees bearing date of March 25th., 1915 make the French laws on long individual agricultural credit applicable to Algeria, with the following reservations :

(a) The local and regional mutual agricultural credit banks desiring to conduct or facilitate long term individual credit business, must, at the date of presentation of their application for advances from the State, have already existed for at least twenty years and must be expressly authorized in their rules to conduct such business.

(b) The object of the loans shall be to facilitate the purchase, installation, transformation and reconstitution of small farms belonging to French owners or to French subjects, only in the case of farms subject to French law.

(c) The local credit banks granting individual long term loans may require from the borrowers, in addition to the security for which provision is made (opening of mortgage credit or life insurance policy), any other security they shall judge necessary, especially when the farms for which the loans are required have been converted into undistrainable homesteads.

(d) The conditions for repayment shall be established by the regional banks which shall take account of the yield from the various kinds of operations for which the loans are granted, and repayment shall be made in annual instalments.

(e) The refunds received by the local agricultural credit banks shall be paid over by them to their regional banks within a week from collection. The regional mutual agricultural credit banks shall in their turn pay into the Treasury, before the end of January, the amounts refunded to them in the preceding year. The special advances obtained by these banks must be fully repaid at the end of the twentieth year.

(f) These special advances made by Government to the regional banks may never amount to more than twice the share capital of the banks.

ITALY

NEW PROVISIONS FOR AGRICULTURAL CREDIT. — In the number of this Bulletin for January last we dealt with an important Decree no. 1,089 of October 11th., 1914, by which the Italian Government arranged temporarily to assist certain Institutes (ordinary savings banks and co-operative credit societies) in their agricultural credit business during the whole of 1915. Recently, the Government, in consideration of the necessity of extending the functions and facilitating still further the work of the agricultural credit institutes, by Decree of the Viceroy, no. 961 of June 17th., 1915, has extended the operation of the above Decree to December 31st., 1916, issuing the following new provisions :

The special preference claim conferred by art. 1,958, no 5 of the Italian Civil Code in connection with amounts due for seed and agricultural work and harvesting, on the profits of the harvest, is extended to those for manure, antirypogamic material, remedies or insecticides, implements for ploughing and the manipulation and preservation of agricultural produce and the first treatment of this produce ; and in case of there being no harvest it shall extend to the next year's harvest.

This preference claim shall take precedence, in the order fixed by art. 1,960 of the Civil Code, immediately after that for credits for seeds.

In addition, the Institutes of issue are authorized to rediscount the bills and acceptances of the agricultural credit institutes created by special laws, the Institutes authorized by Royal Decree no. 1,089 of October 10th., 1914, as well as of the Unions and Federations of Agricultural Societies legally constituted according to the principles established by order of the Treasurer and the Minister of Agriculture, Industry and Commerce.

The rate of this rediscount shall be 1 % less than the official rate of discount.

The bills of the above Institutes may run even for more than four months, but not for more than six.

In addition, for the whole of 1916, the Minister of Agriculture, Industry and Commerce shall have power to authorize by Decree the immediate opening of geneal warehouses for agricultural produce or other goods.

The Institute of Agricultural Credit for Liguria (1) in Porto Maurizio is also authorized for the whole of 1916 to grant direct loans to farmers for periods of not less than three years and amounts of not more than 3,000 frs. to landowners in Liguria in order to provide their farms with drinking water and water for irrigation purposes and to change their methods of farming. The Institute may devote a total sum of not more than one fifth of its available funds to this work.

(1) See the article: " Agricultural Credit in Marche, Umbria and Liguria ", published in the number of this Bulletin for June, 1915, pp. 77 et seqq.

Finally, the Institutes of agricultural credit created by special laws are authorized to purchase agricultural machines for lease or sale to the *monti frumentari* of Sardinia, Basilicata and Sicily, agricultural consortiums, rural and agricultural banks, or even to individual farmers or associations of farmers.

The sale may be on credit. In that case the Institute shall be guaranteed by a preference claim on the machines to take precedence of any other.

The same preference rights in favour of the Institutes of agricultural credit granting subsidies shall form a charge upon agricultural machines purchased by means of credits granted for the purpose to the above mentioned organisations and farmers.

ROUMANIA.

RURAL LAND CREDIT IN 1914. — The Board of Management of the "Premier Roumanian Land Credit Society" has published a report of the situation and work of this society in 1914, from which it appears that the four years 1910-1913 formed the most prosperous period for Roumanian agriculture. As the economic life of Roumania is almost entirely dependent on the agricultural production, it is easy to explain the prosperity of recent years. The yield from the harvest necessarily influences the revenue from taxation and export dues.

After the peace of Bucharest which extended the territory and the prestige of Roumania, there followed a period of tranquillity, allowing of a more rapid economic advance and the realisation of a series of important agricultural reforms. At the end of May and the beginning of June, 1914 rust had considerably damaged the barley and oat crops and to some extent threatened the wheat harvest, which was only 8 hl. the ha., with an average weight of 73 kg. per hl., while in the preceding years the average yield had been 17 $\frac{1}{2}$ hl. the ha., weighing 77 $\frac{3}{4}$ kg. per hl. In spite of the high prices paid for wheat and other cereals in 1914, most of the farmers, as they had neither reserve funds nor credit, were obliged to sell at low rates, so that it was certainly not the farmers who profited by the enormous rise in prices due to the present war, but rather a whole series of speculators.

On account of the war, the financial crisis has become more and more acute. The closing of the Dardanelles, the difficulty of importing the materials required for industry and commerce and the excessively high rate of exchange for payments abroad, have contributed to raise the price of industrial products, while, at the same time, in consequence of speculators monopolising the grain, the cost of living in the towns has risen extraordinarily. The Banks also have suspended the credits of which formerly they were too lavish. At present all feel the need of money, although the money circulation is larger than in the past, even in the most prosperous

years. Actually in 1913, the total circulation (gold, silver, nickel and bank notes) was 528,585,275 frs. ; whilst at the end of 1914 it was 675,644,979.50 frs. so that in 1914 it was 146,000,000 frs. more than in 1913. The banks, though more prudent in granting credits, have not diminished their business, as the following figures show, which represent the bills and acceptances and the anticipations on deposit and on mortgage of the 43 principal banks of the country on December 31st., of the two years 1913 and 1914.

December 31st., 1913	1,149,700,000 frs.
» » 1914	1,229,700,000 »

showing a difference of about 80,000,000 frs. in favour of the second year. Consequently loans have increased, and this is largely due to the landlords. Why then, it will be asked are payments effected with such difficulty? On December 31st., 1911, the arrears of instalments due to the rural land credit society amounted to 6,412,528 frs. ; on December 31st., 1912, to 9,705,669 frs., on December 31st., 1913, to 11,176,197 frs. and on December 31st., 1914, to 16,770,289 frs. The cash balance was on December 31st., 1914, 68,016 frs. against 3,496,214 frs. on December 31st., 1911, and the value of the coupons matured on December 31st., 1914, was 10,786,899 frs. as against 6,279,004 frs. on December 31st., 1911.

The amounts collected by the society in the months July-November, 1914 were as follows: July, 1,679,191 frs.; August, 266,977 frs.; September 977,515 frs. ; October, 3,504,938 frs. ; November, 4,100,932 frs. As we see, after the declaration of war in Europe, the debtors of the rural land credit society suspended payment of their instalments. Although the Board of Management of this institution disposes of means to compel payment of arrears (sale of land, distraint and sale of crops, the charge of interest on arrears) the measure habitually adopted by it in the last year, which is a very lenient one, is that of charging interest on arrears. The rate of such interest was 8 % up to August 1st., 1914; since then the Board of Management has been compelled to raise it to 10 %. Owing to this, many of the landowners who had fallen into arrears with their payments have now paid up to date, which is shown by the amounts collected since September, 1914.

The land bonds in circulation on December 21st., 1914, of a nominal amount of 467,585,964 frs. are secured on land that may be valued at more than 2,250,000,000 frs., share capital of an amount of 10,600,900 frs. and a reserve fund of 30,409,826 frs. of which 35,674,500 frs. are invested in bonds of the rural land credit society and the rural bank and in Government revenue bonds. The security therefore represents about five times the value of the society's bonds.

During the last year, in view of the excessive number of instalments due, the society did not desire to aggravate the situation by increasing the number of its bonds in circulation by new issues ; therefore, since the beginning of the war, the board of management has quite suspended its loan business. The price of rural land credit bonds, like that of other secur-

ities, has fallen appreciably, from 90 % and 91 % for the bonds to 5 %. Debtors who were unable to sell their bonds are keeping them until the circumstances are more favourable.

A new issue would further lower the price and render the situation of the money market more uncertain.

When, as a result of the collection of the instalments in arrear, the society returns to its ordinary situation, it may again grant loans.

The balance of the reserve fund at the end of 1914 was 25,073,600 frs. in securities and 5,336,226 frs. in cash, or altogether 30,409,826 frs., that is 6 % of the debt of the landowners, which is 467,613,834 frs.

The profit for 1914 was 806,056.69 frs., which added to the amount brought forward from the preceding year makes a total of 866,056.69 frs.

This profit was distributed as follows: 9712,451 frs. as dividend to holders of bonds at 5 %; 80,605.69 frs., to the members of the board of management and the directors and the balance 73,000 frs. carried forward to the next year's accounts.

The estimates for the year 1915 are a revenue of 1,398,000 frs. and an expenditure of 636,314 frs. (staff, 524,114 frs.; material, 112,200 frs.) or a credit balance of 761,686 frs. Such was, briefly the situation of the "Premier Rural Land Credit Society" on December 31st., 1914.

(Summarised from the Report of the Board of Management of the "Premier Roumanian Land Credit Society" for 1914).

Part IV: Miscellaneous

BRITISH INDIA.

PARTITION AND CONSOLIDATION OF HOLDINGS AND RELAYING OF FIELD BOUNDARIES IN THE PANJAB.

By Sir JAMES DOUIE, K. C. S. I.

The Panjab is in the main a country of small peasant landowners organized in village communities natural or artificial. An ordinary holding in the plains covers from five to ten acres. The fields of which it is composed do not lie in a single block, but are scattered over the area. The reasons for this arrangement, which is often inconvenient, are explained below. "Partition" has always held an important place in the revenue law and procedure of the province, but hitherto little consideration has been given to the advantages of "Consolidation" or "Restripement." The law on the subject of Partition is contained in the 9th. chapter of the Panjab Land Revenue Act.

In the United Provinces, which occupy the upper part of the basin of the Ganges, and in the East and Central Panjab, the village community was a real part of the social organisation which the English found in existence when they took over the country. A village, big or little, had definite boundaries, a central inhabited site, arable land held in divided ownership, and a waste area, often very large, open to the use of the whole proprietary body and its dependents. Under Indian revenue law all the members of such a landowning community are jointly responsible for the payment of the land revenue assessment. The common pasture, like all other common property, was held in recognized shares, but so long as it remained undivided, its use was without stint, no limit being placed on the number of cattle which an individual proprietor could graze, or, what is more curious, on the amount of pasture which he could convert into arable for his own profit. The Panjab pastures are generally, of poor quality, and fodder crops play a large

part in the agriculture of the province. The more land was brought under the plough, the easier, speaking broadly, was it to meet the demands of the Raja as supreme landlord for his rent or revenue. The above was the tenure with which the first settlement officers in the Panjab were familiar, and they imposed it even in the south-west of the province, where the communal village did not exist. In that arid tract cultivation outside the river valleys was impossible without artificial irrigation. In the dry uplands the real unit of ownership was the well. The well holdings were scattered over a vast area of waste in which boundaries were not recognized, and over which the cattle of the cultivator and the flocks and herds of nomad shepherds and nomad owners of horned cattle and camels grazed and browsed at will. Instead of accepting this tenure as they found it, our officers formed estates of groups of wells to which they assigned an ample area of waste as common property. The surplus waste they claimed as the appanage of the State.

In old days when a body of tribesmen or peasants, by permission of the ruler or otherwise, settled on a vacant tract of land, they sooner or later proceeded to divide among heads of families according to definite shares the parts of the area most easily culturable. The guiding rule was the democratic one of complete equality. One way of securing this in northern India, as in other countries, was the periodical redistribution of land. The right to enforce this where it is in accordance with established custom is recognised by Panjab revenue law. Cis-Indus the custom has nearly died out and may never have been widespread. It survives in a few estates in the south-east of the province (1). Some of the Pathans in British territory adjoining the Western frontier carried out periodical redistribution within recent times, and beyond the border among the semi-independent tribes to the north of the Peshawar district the custom was very much alive a dozen years ago. Sir Henry Mc Mahon, the present representative of British authority in Egypt, was at one time a political officer in the tract referred to. Writing to the Author in 1901, he noted that "the system of periodical redistribution of lands in these countries is universal. Redistribution takes place at fixed intervals, which vary in each locality from 5 to 10, 15, and 20 years. (It)... extends to the exchanges of whole *tappas* (2) as well as to the redistribution of the general shares of *daftaris* (3). The redistribution of *tappas* is, as might be imagined, the source of serious dispute. Heavy fighting is at the present moment taking place over the redistribution of the *tappas* of subdivisions of the Bahozaï tribe in Upper Swat, the object of which, after a long period of 25 years without redistribution, is to give the other subdivisions of the tribe a turn in the possession of Mingaora, not only one of the strongest villages in Upper Swat, but a place whose position on the main trade routes gives it a heavy income from tolls." Sooner or later this "pernicious system", as Sir Henry Mc Mahon calls it, must disappear.

(1) Gazetteer of Gurgaon.

(2) *tappa* = tract held by a subdivision of a tribe.

(3) *daftari* = man holding a share of tribal land.

"Lands which might be irrigated by new water channels remain unirrigated, for what Pathan will do a stroke of work for the benefit of his successor? Why should he make water channels? Why should he plant trees or make orchards for some one else to enjoy at the next redistribution?"

Apart from periodical redistribution the easiest way to ensure equality of treatment was to assign to each shareholder a plot out of every sort of land. A simple case is that of a village perched on the edge of the bank which marks the past or present limit of river floods, and including land both above and below that bank. There each man would undoubtedly claim a block in both uplands and lowlands, and family holdings might easily be the result of a more complex plan of division, for neither in the high or low tract would all soils have equal advantages. Another way to obtain equality was to allot land in long narrow strips. The plan was sometimes carried to great lengths, as in the case of the tenure known as "likivand" (line-division) in 22 villages of the Attock district. This consist in the allotment to each family or subdivision of the village of a long strip of land in each of the main quarters of the estate, so as to ensure that no one shall get the better of his neighbour. Inside the strip, which often runs to a length of half a mile, each member of the family takes so many spans according to his share until, as subdivision increases, the resulting fields tend to become "length without breadth." (1)

According to the ideas of the people, property in land belongs to the family rather than to the individual. Under native rule, when the country was in quiet and population was kept down by wars and famines, there was little inducement to separation of interest. On the other hand, the English legal and revenue systems have for good or evil encouraged individualism. Under the native law of inheritance each son takes an equal share of his deceased father's land, and it commonly happens that family quarrels, for which the wives get the credit of being often responsible, make joint holdings irksome. But communal holdings are still numerous, and fresh ones are constantly being created when several sons inherit their fathers' property, or when a share in a holding is mortgaged.

When peace and order were established and the State rent due from the village community was commuted to a fixed cash demand subject to no change for a period of 10, 20, or 30 years, it became the interest of each shareholder to break up as much of the common waste land as possible. As the process goes on it is found that some men have brought under the plough more than their proper share and that the powerful members of the community have grabbed the best land. In the end the weaker shareholders protect themselves by applying for partition in accordance with the ancestral or customary shares recorded in the record of rights. That important document, which is carefully kept up to date, besides showing what the shares are, contains a statement of the rule to be followed in carrying out partition.

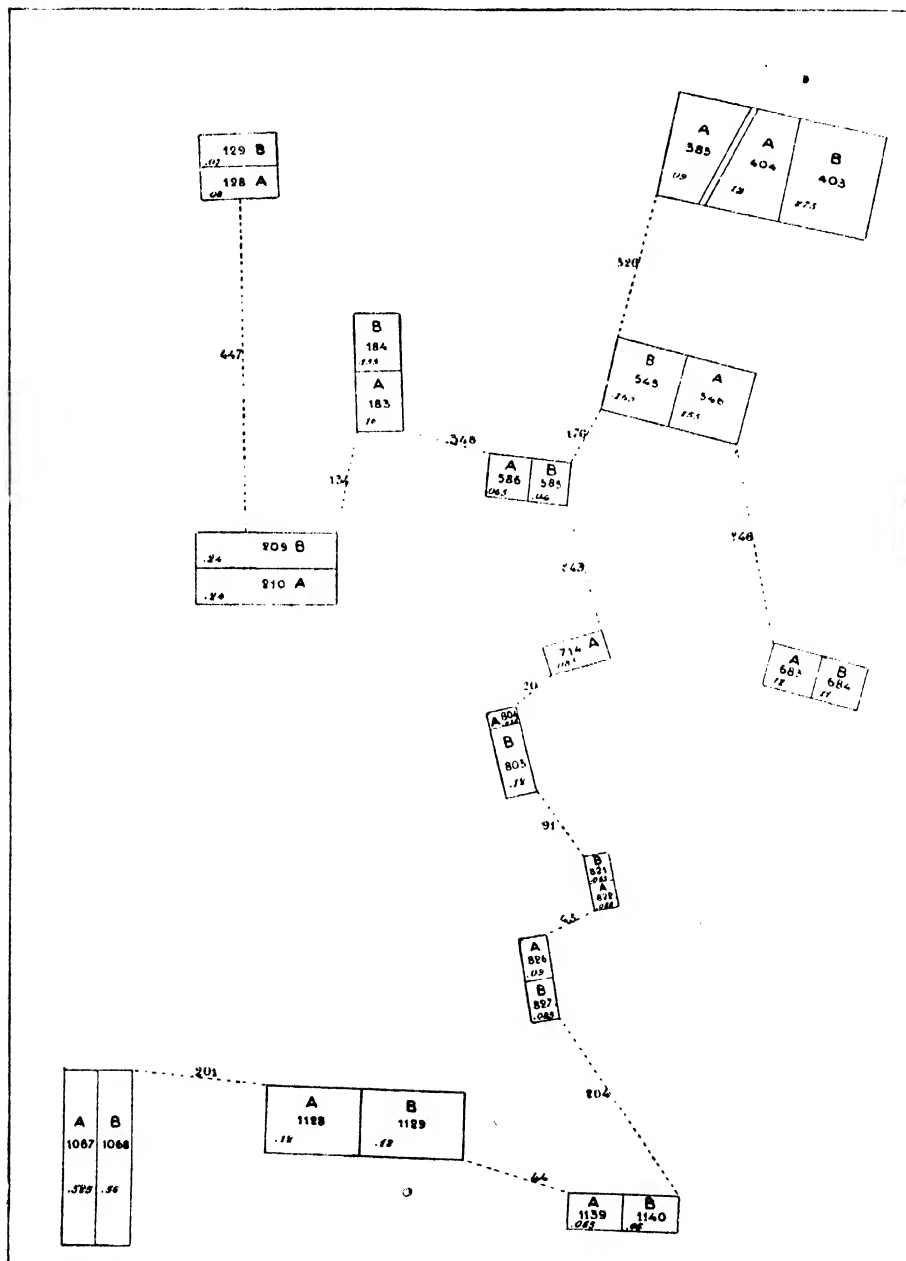
(1) Gazetteer of Attock.

Partitions of whole villages have been freely allowed in the United Provinces with the result that many small separate estates have been created. The process destroys the responsibility of the shareholder who obtains partition for the payment of the land revenue of the parent village community. It has always been discouraged in the Panjab, and can only be carried out with the sanction of the highest revenue authority in the province. In a few cases it has been allowed in order to break up some of the huge estates in the west of the province into more convenient revenue units.

When the shareholders in a joint holding decide to separate their interests there is no bar to their making the partition without the help of any Government official. When the process is complete and each man has taken possession of his own lot, they can have the transaction entered by the village registrar in the mutation register so that it may, after attestation by a revenue officer, be embodied in the record of rights. The law has carefully provided against the danger of the conversion of separate possession of land into separation of title against the wish of any of the joint owners. It is found that shareholders are for years content to cultivate less than their full share without any intention of giving up an iota of their rights. Private partition is only suitable in very simple cases. It will easily be carried out in the new Canal Colonies, where each of the original holdings consists of a single block of land divided into rectangular fields, all of the same shape and size (see No. 1 January, 1915). Where there is any complication, and especially when common waste has to be divided, it is prudent to invoke the aid of a revenue officer. Any joint owner or joint tenant, having a permanent right of occupancy, whose title is recorded in the last edition of the village record of rights, can apply to have his share in the family holding or in the common waste separated off. If any partition of common pasture occurs it will usually be found that each man wants to take his separate share.

The law is careful to provide that partition claims shall only be decided by officers of sufficient rank and experience, though they are allowed to act on reports furnished to them by subordinate officers. There is no better test of the worth of a revenue officer than his capacity to deal competently with a complicated partition. If there is a real dispute as to title a judicial decision must be obtained before partition can proceed. If no question of title is raised, or if one has been raised and decided, the right conduct of the proceedings depends above everything on willingness to take pains. A man dealing with a partition must be prepared at the outset to ascertain by careful enquiry what the real position of the contending parties is, and what is the nature and extent of any objections put forward. He must be ready to visit the village and satisfy himself by the use of his own eyes regarding the truth or falsehood of assertions as to the relative value of different plots of land. If he will take the trouble to do this, he will be able to do substantial justice. Though much of the detailed enquiries must be made by a subordinate, the officer who has to decide the case fails in his duty, if, as sometimes happens, he passes orders on written reports without having the parties before him, and, if need be, inspecting the land. There

Two Small Holdings in a Village in Jalardhar District.



Distance in Yards

Areas in Decimals of an Acre.

The Diagram is not drawn to any Scale.

is always a great tendency to do the work mechanically and give every man his exact arithmetical share of each class of land. Such a procedure may in fact be far from equitable. While the holding was joint, one shareholder may have brought part of it under irrigation by sinking a well or digging a channel, or may have raised its value by embanking it. He ought as far as practicable to be allowed to retain the land whose present value is due to his enterprise. This can sometimes be done by giving to the other shareholders a larger area of unimproved land.

A revenue officer may for "good and sufficient cause" reject outright an application for partition. The right of appeal to a higher authority is a sufficient check on any misuse of the power. One case in which it is reasonable to exercise it is where many of the new holdings, which would be created by dividing the common land of a village, would be so minute as to be useless to the persons to whom they would be allotted. Claims by widows are troublesome. By a just provision of the customary law, which governs the inheritance of village land, a childless widow has a life estate in the land of her deceased husband. The next heirs look on her possession with suspicion and dislike, and they often raise strong objections when she asks to have her share separated off. Their fear that she will mismanage the property, if she gets undivided control, is not infrequently well founded. On the other hand the widow is sometimes cheated of her fair share of the produce of a joint holding. If any satisfactory arrangement can be made to safeguard her rights without partition, it is safer to disallow it. The law expressly cites other cases in which partition may be refused. Examples are grazing grounds and the drainage area of the village tank. Even if the grass in a village common is not of much value, it is useful to reserve part from partition, so as to have some vacant space where the cattle can be kept in the day time. In arid tracts, where the people depend on tanks for their own drinking water and that of their cattle, it is important to keep the drainage area free from separate occupation. The village site itself cannot be the subject of partition proceedings.

When a case has been decided, an instrument of partition detailing field by field the allotment of land to each shareholder is drawn up. Before this is done the village registrar should have pointed out to every man the land that has fallen to him. If this preliminary has been properly attended to, possession is usually obtained without difficulty. If it is refused, the revenue officer will, if applied to, enforce the partition. As soon as is actually carried out the registrar should write up the new holdings in his mutation register for entry after attestation in the record of rights.

In the years 1911-12 the number of partition cases decided was 9,587. The area involved was 744,700 acres, of which 314,801 were cultivated. As there are 35,000 villages in the province there was, roughly speaking, one case for every four villages.

Before referring to the question of consolidation it may be well to show graphically how inconvenient existing arrangements may be. The diagram which is not drawn to scale, shows the actual distribution of a very small holding, which A and B inherited from their father and subsequently divided.

Though the original holding only covered an area of less than 4 acres, it consisted of 13 distinct parcels of land, the distance between each set of two varying from 30 to 447 yards. Partition was effected except in a single case by dividing each parcel of land in two. A list of the fields in the two new holdings is given below.

TABLE I. — *Distribution of two Holdings formed by Subdividing a Small Holding consisting of 13 Parcels,*

No. of Block	Holding of A.		Holding of B.	
	No. of Field	[Area in Acres	No. of Field	Area in Acres
1	128	08	129	09
2	183	16	184	16
3	210	24	209	24
4	385	09		
4	404	12	403	27
5	546	15	545	16
6	586	05	585	04
7	714	08		
8	804	02	803	12
9	822	05	821	06
10	826	09	827	09
11	1,067	53	1,068	56
12	1,128 }	12	1,129	12
13	1,139	07	1,140	05
Total . . .		1.85	Total . . .	1.96

The revenue law is silent on the subject of consolidation, but in some cases necessity has taught the people themselves to find a remedy for dispersion. A well with a good water supply is worked with four yokes of oxen working in relays of a yoke at a time. Four small owners with two oxen a piece can reasonably combine their capital and labour to sink a well. Each will then take a fourth share of the water and be entitled for six hours out of the twenty four to use the well to irrigate his own fields. The original holding shown in the diagram was large enough to use profitably a fourth share of the water of a well. But a man cannot irrigate such scattered fields. A proprietor in this predicament has to try to induce his neighbours, if he can, to take some of his fields and give him some of theirs in exchange. If he succeeds the exchanges are embodied in the

record of rights. In the much rarer case of a holding consisting of a single narrow strip of land, irrigation is impossible. Where "likivand" exists it fortunately tends to break down before the wish to sink wells.

"When a man wishes to improve his property in this way he negotiates exchanges or purchases and consolidates his holding. In one small village of 366 acres, in which there has been a rush to sink wells, remeasurement showed that some 1,500 mutations must be entered up to give effect to all the transfers which had taken place" (1).

In the Jalandhar district peasants resort to exchanges in order to consolidate holdings when they intend to sink a well. Exchanges with the same object are common in Ferozepore. Agricultural statistics for the province show the total number of exchanges and the areas exchanged. They give no clue to the proportion of cases in which the motive was consolidation, but it is probable that in very many cases that was the object in view. This inference is strengthened when we observe that exchanges are specially numerous in districts in which there is activity in well sinking. The table below gives totals of new wells sunk, exchanges affected, and acres exchanged for the five years ending 1913-14. The provincial figures are the totals for 27 districts, those for Multan and Muzaffargarh being excluded.

TABLE II. — *Statistics of Well-Sinking and Exchanges 1910-1914.*

Detail	New Wells	No. of Exchanges	Acres Exchanged
Province	12,933	90,299	162,992
Jalandhar district	1,307	27,667	18,945
Ferozepore "	778	4,660	10,093
Scialkot "	1,222	3,869	4,554
Gujrat	787	3,869	6,306
Attock	772	2,051	7,866
Total - 5 districts . . .	4,866	41,695	47,764

The new conditions due to the extension of canal irrigation have led to striking changes in the configuration of fields and holdings. An ordinary Panjab village map consists of fields of all shapes and sizes; the map of one of the new canal estates looks like a very large chess-board. In the case of unirrigated fields irregularity of outline matters little. But when canal water is introduced all the irrigation arrangements are immensely simplified if rectangular fields of uniform size are adopted. Further, the official record of crops, which is made twice a year, is much facilitated, and the map,

(1) Gazetteer of Attock.

once made, is practically permanent. If partitions and transfers occur they can be embodied in it by adding a few straight lines. In the case of State lands colonized on the new Canals in the west of the Panjab the Government has had a free hand, and has ordered that the holdings allotted to colonists shall consist of one or more rectangles measuring 25¹/₂ acres, and each divided into twenty five rectangular acre fields. It was evident that much advantage would accrue if the same arrangement could be carried out in old villages when they received the benefit of canal irrigation. The people at first look askance at proposals for rectifying fields boundaries, but they gradually become alive to the advantages of a system which *inter alia* prevents encroachments and boundary disputes, and enables even an ignorant man to check the record of his crops and the charges made for water. The Government has now made the acceptance or rectification of field boundaries a condition precedent to the introduction of canal water for the first time into a village.

It is convenient but not essential, to have one acre fields. What is really necessary is that all fields should be of the same rectangular shape and most of them of the same size. In the case of old well irrigated estates, where the fields and holdings are small and land valuable, the amount of dislocation caused by the rectification of boundaries makes it certain that it will not, as a rule be willingly accepted. But in unirrigated estates with large fields the owners may perhaps in time become convinced of the advantages they would derive from rectification. Obviously a relaying of field boundaries involves a repartition of the village area, and a very large number of exchanges. But existing orders do not encourage any attempt to add consolidation to rectification. They run, "Efforts should be made to cause the least disturbance of existing holdings possible, and, unless the people specially desire it, no attempt should be made to amalgamate holdings scattered in different parts of the estate. They often owe their origin to ine qualities of soil, and provision should always be made for owners to receive not only the amount of land they originally held, but the same amounts of each important class of land." No doubt it is desirable in the first instance to make the allotments on this principle but before closing the proceedings it might be useful to point out to the people the advantages of a certain amount of consolidation, and to offer to embody in the record any exchanges they may desire to make with this end in view.

The Indian peasant is intensely conservative and regards all reforms with suspicion and dislike. It would be unwise to press them upon him in the interests of consolidation. Where he realizes its advantages, he has the means of carrying it out by exchanges, if he can secure the consent of his neighbours, and the revenue machinery provides sufficiently for the entry of all transfers of fields from one holding to another in the record of rights.

FRANCE.

METHODS OF CALCULATING THE LOSSES CAUSED TO FARMERS BY THE WAR.

OFFICIAL SOURCES :

MINISTÈRE DE L'INTÉRIEUR. COMMISSION SUPÉRIEURE CHARGÉE DE LA REVISION GÉNÉRALE DE L'ÉVALUATION DES DOMMAGES RÉSULTANT DE FAITS DE GUERRE. RAPPORT GÉNÉRAL SUR LES MÉTHODES D'ÉVALUATION DES DOMMAGES, présenté au nom de la Commission supérieure par M. Hébrard de Villeneuve. (*Ministry of the Interior. Superior Commission Entrusted with the General Revision of the Estimation of Losses Due to the War. General Report on the Methods of Calculating Losses, presented by M. Hébrard de Villeneuve, in the name of the Superior Commission.*)

§ I. GENERAL PRINCIPLES.

A very recent law of December 26th., 1914, establishes the right to compensation for material loss caused by war, and its 12th. article lays down two kinds of very different provisions :

Some relate to the calculation of damages to be estimated by Cantonal and Departmental Commissions, and, in the last resort, by a Superior Commission at Paris; others refer to the settlement of claims and reserve it to the legislative body to decide on the conditions giving right to compensation for losses. Doubtless estimation is an indispensable preliminary before any compensation can be given, but such estimation in no way binds Parliament in its later decisions and in no way affects the sovereign rights the exercise of which it has reserved to itself.

A decree of February 4th., 1915, organizing the valuation commissions, strictly conforms to the text and spirit of the law of 1914 on this point.

The office it assigns to the commissions is only that of verifying the material loss and estimating the damage suffered by the victims with no right of intervening in the settlement of claims. Let us add that the Government considered that, even before the work of the commissions commenced, the Superior Commission should formulate its opinion, supported by reasons, in regard to the best methods of estimating the losses through war, while it will afterwards, in virtue of its own powers, examine and revise the application of these methods. This opinion we shall now summarise,

considering in the first place: 1st. what losses must be included in the estimation made by the commissions; 2nd. according to what criterion the estimation must be made; 3rd. at what date the loss must be estimated.

(1) Under the existing laws, the only losses the Commissions can rightly consider for purposes of their estimates are those presenting all the following characters:

Material loss, exclusive of indirect losses, such as the loss of profits;

Present losses already caused, exclusive of *eventual losses*;

Losses *directly* due to the war.

(2) The question of the *criterion* for the valuation has given rise to two opposing theories, which have both been sustained before the Superior Commission.

According to the first, the valuation should be based on the cost of reconstruction and restoration of the property destroyed, less the deductions to be made on account of previous deterioration.

According to the second, the *criterion* is the value the object destroyed has at the moment of its destruction.

The majority of the Commission decided in favour of this second view, which was judged to be in conformity with common law. In cases of compensation for losses due, either by private persons responsible, or the State when executing public works, or insurance companies in virtue of contracts passed, the legal rule is that the estimation is based on the value of the object destroyed, without regard to the intention the party injured may have of repurchasing the object or rebuilding what has been destroyed.

Therefore the loss should be calculated according to the value of the objects injured and not according to the expenditure needed for their reconstruction. However, exceptions to this rule have always been allowed in cases of small importance or under special circumstances. We shall find below a few examples of these exceptions in the case of simple decay of buildings and in regard to farms and forests.

(3) It being admitted that the value of the object destroyed must serve as the criterion in accordance with which the loss is estimated it must be decided at what date this value is to be estimated.

The rule of common law is that, in order to judge of the damage, we must place ourselves at the moment at which it was caused.

In regard to furniture, crops etc., this principle would present no legal difficulty in its application; the point that will remain sometimes rather embarrassing is how to fix precisely the date of the removal or the destruction.

With regard to buildings, the Commission has been induced to deviate from the above rule or rather to introduce a condition which seemed to it equitable and which is not at all in conflict with the law. To attempt to apply in the case of houses this method of valuation at a fixed day would often present real impossibilities. Such precision is besides more than is necessary, for a building does not suffer daily alterations in value, as do objects the market price of which changes from moment to moment. If the date for valuation is fixed at the period immedi-

ately preceding the war, there will be absolutely no departure from the rule that the value of the things damaged must be calculated at the moment of the injury, but, by means of a fiction which is very near a truth, the period of the war is taken as a unit of time, which is at once more practical and more equitable.

After having thus indicated the *criterion* for the valuation of the losses and the date at which they are estimated it remains for us to give the rules for the estimation.

§ 2. GENERAL RULES FOR BUILDINGS,

(1) Previous to any verification or estimation, the Commission must, through the medium of the delegate of the Minister of Finance, obtain the estimates the financial administrations were able to make of the value of the buildings damaged at a date as near the war as possible.

It must obtain the last decennial estimate of the department of direct taxation, and, especially, information in regard to the general condition of the buildings in the commune, statement of the taxes on buildings, special documents relating to buildings of exceptional value, and the protests made by the ratepayers against the estimates of the authorities.

It must seek in the files of the registration offices and if need be in the registers of mortgages for all documents relating to the buildings in the last ten years.

The various information the Commission intends to make use of must be communicated to the parties concerned on request.

(2) In the case of buildings mortgaged to the Land Credit Institute of France, it must request that the estimates of the inspectors of that establishment be communicated to it.

(3) In the case of insured property, it must ask the applicants for the insurance policy.

(4) The Commission must make investigations in regard to the cost price of construction of the buildings before the war, with deduction for depreciation through lapse of time. The Commission must have power to charge one or more of the competent persons whose assistance it has obtained **with** the preparation of a report on the cost of construction of buildings of ordinary character, so as to be provided with a sure and rapid means of calculating simple losses.

The comparative examination of these various elements will allow of the valuation of the loss, in cases of total destruction. In cases of partial destruction, the value of the salvage is to be similarly calculated.

In cases of slight damage or mere deterioration, the Commission must only calculate the cost of the necessary repairs, but if this cost amounts to more than a fifth of the value of the building before the war, it must consider that there has been partial destruction and proceed as above.

§ 3. SPECIAL RULES IN REGARD TO DAMAGE TO FARMS.

Independently of the above general rules relating to buildings, more special account must be taken in the case of farm buildings of their uses, that is to say of the uses they really serve, without any profit being made by the victim of the loss.

In the absence of definite indisputable indications, an interesting point may be taken into consideration : namely the average relation, in a particular region, between the value of the buildings and of the holdings in the case of large, small and medium sized farms.

The Superior Commission has considered it advisable to supplement these general instructions by detailed indications of the various categories in which agricultural property exposed to damage by war may be grouped.

Agricultural Equipment. — Under this head are included the machinery, motors, carts, implements, tools, harness and furniture purely for farm use, belonging to the farmer etc.

The Commissions must make sure that the declarations made are true and really correspond with the areas cultivated.

The reasonable purchases made by the farmers, the cost of repairs, and the estimate of competent persons in regard to leases with livestock will be of great assistance to the Commissions in making their estimates.

Draught Cattle and Cattle for Sale. — As in the preceding instance, the Commissions must make sure that the declarations made correspond with the facts. They may, for the purpose, consider the area and the class of crops. The managers of agricultural services and the professors of agriculture will be of valuable assistance in this respect to the cantonal commissions. The estimate for the animals will represent the value of the livestock at the moment of the loss.

Agricultural Produce in Warehouses. — Under this head are included the straw, and cattle foods in warehouses or stacks, grain, seed, oilcake, bran, roots and tubers, household stores etc. The valuation Commission must try to ascertain the value of these articles at the moment of the loss.

Manure heaps and fertilisers will be valued in accordance with the principles above indicated.

Standing Crops. — The Commissions will have to fix the value of this produce at the moment of its destruction, on the basis of the values admitted in the country. Local experts are frequently called to make valuations of this nature and the average prices known and accepted must simply be adapted to the cases under consideration.

Vineyards. — Two cases are to be considered : the total or partial destruction of the vineyard, or the destruction of the last harvest only!

In the first case, the Commissions must estimate the loss, taking into account the cost of new plantation. All facts relating to the planting, stocking,

grafting, fixing of poles or wires, preparation of the vineyard etc., in accordance with the custom of the country and viticultural practice, must be considered in making the estimate. The value of the harvest destroyed, fixed according to the nature of the root stocks, the previous harvests, and the documents relating to the harvest in question, must be added to the estimate of the new plantation.

The result of new plantation may be the loss or diminution of crops during three, four or five years, according to the district, but from such loss should be deducted the increased value of the reconstituted vineyard. The Commissions must be guided by local custom in their estimates, the total amount of which must never exceed the value of the vineyard at the moment of its destruction.

This latter remark applies also in the two following cases, those of hop gardens and orchards or gardens.

Hop Gardens. — The case of hop gardens is similar to that of vineyards: if the hops are entirely or partially destroyed, calculation must be made of the cost of the reconstitution of the garden with poles or wires to restore it to its former condition, and the value of the crop must be added, if it has been lost; as well as that of the annual loss in value, but deduction must be made for the increased value of the hop garden through its reconstitution.

If the harvest only has been destroyed or spoilt, the estimate must correspond with the real loss, which in this case is comparatively easy to fix.

Orchards, gardens. — The rule for estimating losses in cases of vineyards and hop gardens applies also in that of orchards. If an orchard is entirely or partially destroyed, it must be virtually reconstituted as it was, as regards the number and kind of plants. The declarations made must therefore show the number of trees destroyed, their kind, their average production etc., and the value shall correspond with the cost of obtaining the plants, the new plantation, grafting etc., that is to say the restoration of the orchard to its former condition. To these amounts must be added the value of the last crop destroyed and the reductions of crop, deducting, eventually, from the total estimate the additional value acquired by the restoration of the orchard to its former state.

Nurseries. — In this case the estimation is simple: it depends on the number and current market value of the plants destroyed according to their age and their nature. A list of the plants and the ordinary sale prices must be sent in to the Commission.

Preparation of Soil for Crops. — If land sown or simply prepared for seed is damaged by military evolutions or the passage of troops, the value of the preparation of the soil and the land sown must be made according to the custom of the district.

Battlefields and Trenches. — The resumption of agricultural work will require first of all the removal of the shells, at any rate of those that can be found.

Then the trenches must be filled up and these, in some cases are real fortifications occupying large areas and extending deep into the soil and subsoil. The estimate will therefore include the work of demolition, if the

fortifications are considerable (masonry, concrete, timberwork, fences etc.); that of filling up the trench; that of levelling; or, in other words, the restoration of the soil to its former condition.

In case of destruction of drains, enclosures or canals, the value of the material that can be used that remains in the possession of the claimant must be deducted.

Finally, in case of permanent depreciation in value of the soil owing to its being violently disturbed and covered by sterile layers, the Commission must estimate the amount necessary for the restoration of the farm to its former condition and take into consideration the depreciation in value of the soil for the purposes for which it served.

In regard to private roads, the estimate would also include the expense of their reconstruction.

§ 4. SPECIAL RULES IN REGARD TO DAMAGE TO FORESTS.

The estimation of damage caused to woods and forests is a specially delicate matter, for forest land is a kind of property possessing quite a special character.

At first glance, this special character is not seen. Forest plantations like farm crops are the result of cultivation and a wooded estate of some importance may provide its owners with an annual income like a farm; but considering the matter more attentively we find that forest property has this fundamental and exceptional character that it never furnishes an annual income at a certain place. Whilst in farming the general rule is that one derives produce from the soil each year, a wooded holding, of whatever nature, is not capable of giving a yield till a certain number of years after the plantation or its renewal. Besides, in contradistinction to other crops, wood increases in value from year to year up to the ordinary date of felling. So we are induced to regard the forest soil as a capital bearing compound interest, and from this idea follow the special rules for forest valuation.

On the other hand, the cultivation of forests yields products of very different value and character (timber, wood for manufacturing purposes, fuel etc.) with the peculiarity that each kind of wood may be utilised, not only for the usual purpose but also as wood of inferior classes.

Now this peculiarity is of great importance, especially in the case of requisitions, for the forest proprietor may suffer considerable loss if wood of a superior quality is requisitioned for inferior purposes, especially if timber is requisitioned for fuel.

Finally, the effects of damage done to forests are often unknown and the valuation of them calls for technical knowledge scarcely to be found outside of professional circles.

For these various reasons it has been judged advisable to consider the damages to forest land separately and these damages have been classified as follows:

ITALY.

AN ENQUIRY INTO THE ECONOMIC CONDITIONS OF THE TENANT FARMERS IN THE PROVINCE OF UDINE.

This enquiry was carried out by the Provincial Labour Office of Udine with the object of preparing material for the study of reforms and improvements in the relations between the landlords and metayers (1). By means of it information was also obtained in regard to small household industries, which it was desired to extend so as to give the tenant farmers' families a means of increasing their incomes and provide them with occupation in the hours and at the seasons when field work is suspended.

The investigations, however, were not extended to the communes in mountain districts, where, indeed, there are no important farm tenancies, though these abound in the plains.

The households considered are those leasing at least 20 *campi friulani* (2) (7 ha.) ; consequently 1,070 households, composed of 5,350 individuals in all, working farms of a smaller area, were neglected. They are equal in number to about 18 % of the households actually studied, and on an average work 12 *campi* per family, and so altogether 12,840 *campi*. For 340 of these families the receipts and expenditure were equal ; 660 of them closed their accounts with a *deficit* and 70 with a small profit. This result is due to high rents (40-100 frs. per *campo friulano*) and the unsatisfactory working of the land owing to want of labour or capital.

Besides this, 388 households with 5,036 members (6 ½ % as compared with the households studied), were not considered in the enquiry, as the heads are small landowners who cultivate their own farms and also work farms belonging to others. Almost all of these close their accounts with a profit, although they pay high rents and the increase in the rents is indeed principally due to them.

The households studied are shown below :

(1) See the " Bollettino dell'Ufficio Nazionale del Lavoro ", published by the Department of Agriculture, Industry and Commerce, Rome, no. 15, October, 1st., 1913.

(2) 1 *campo friulano* = 3, 500 sq. m.

TABLE I. *Tenant Farmers' Households considered in the Enquiry.*

District	Tenant Farmers' Households	Members of Households (Including Children)
Palmanova	680	8,714
Latisana	556	7,622
Codroipo	275	3,684
Udine	527	6,778
San Daniele	427	6,040
Gemona	65	650
Tarcento	100	1,063
Cividale	1,481	14,000
San Vito al Tagliamento	690	10,700
Pordenone	755	11,726
Sacile	295	4,170
Maniago	23	310
Spilimbergo	106	1,395
Total	5,980	77,492

Let us now at once consider the farm tenancy contracts and the balance sheets of the tenants' households.

Contracts in Vogue. — There are three principal types of contract, metayage, mixed leases and leases for rents in money. Metayage, for which the unit of cultivation is from 40 to 60 *campi friulani*, appears under four different forms, according to the proportion contributed by the parties to the formation of the capital and according to the division of the profits.

Mixed leases represent a kind of metayage but with a fixed amount of money or grain, generally wheat, representing the landlord's interest in the produce of the soil; in regard to the produce of the trees the system of metayage is applied, with the corresponding mutual rights and duties. The unit of cultivation is from 20 to 60 *campi friulani*; in this case also the contract may take four different forms.

In the case of rents to be paid altogether in money, finally, the tenant pays from 40 to 50 frs. per *campo friulano*, in cash, in two annual instalments on expiration of terms, without any other charge. The costs of working the farm are all borne by the tenant. The landlord has only to pay the taxes and general expenses.

The above three forms of contract are found in all parts of the region ; however, rents in money are less frequent on large tenancies and correspond with only 5 % of the contracts. Mixed leases predominate to the East of the Tagliamento (Udine, Gemona, Tarcento, San Daniele, Codroipo, Latisana, Palmanova, Cividale) and represent 85 % of the contracts; to the West of that river (S. Vito, Pordenone, Sacile, Maniago, Spilimbergo) metayage predominates, representing 80 % of the contracts, as against 15 % mixed leases and 5 % tenancies with rents payable in money.

From an examination of the accounts of peasant families classified according to the various types and forms of contract, it was possible to prepare the following table :

TABLE II. — *Statistics of the Various Farm Tenancy Contracts.*

Type of Lease		Tenants' Households	Campi Worked	Number of Members of Tenants' Households	Share of the		Average Yield per Campo	
					Landlord	Tenant	to Landlord	to Tenant
Metayage	Type A 90 %	1,712	91,070	25,142	2,780	2,212	55.60	44.20
	" B 5 %	95	5,061	1,395	2,920	2,622	58.40	52.40
	" C 2 %	39	2,018	550	2,714	2,146	54.30	42 —
	" D 3 %	57	3,041	844	2,180	2,512	43.60	50 —
Total . . .		1,903	101,190	27,937				
Mixed	Type A 35 %	1,320	48,461	16,007	2,030	2,535	50 —	63.40
	" B 50 %	1,887	69,231	22,826	2,150	2,415	53.70	60 —
	" C 15 %	567	20,769	6,846	2,150	2,415	53.70	60 —
Total . . .		3,774	138,461	45,679				
Rents Payable in Money . . .		303	12,614	3,876	2,150	2,465	53.70	61.60
General Total		5,980	252,265	77,492				

It is to be observed that in compiling the table for the metayage contracts, the unit of cultivation has been taken as 50 *campi friulani* of average fertility, while in those for mixed leases and tenancies paying rent in money the unit was taken as 40 *campi* :

Under forms *B* and *D* of the metayage contract, the tenant, generally, has nothing of his own, while in all other cases he owns the horned cattle and farm implements, and this is why his profit appears larger, through the interest on the capital invested in livestock.

The Accounts of the Households. — In order better to ascertain the economic situation of the colonists of the province, the report of the enquiry further gives, as nearly as possible, the figures of the balance sheets of the households, studying for the purpose a household of the prevalent type in each commune and noting how many households were in better or in worse circumstances.

The data thus obtained are summarised below :

The general average expenditure per household is 155 fr. per year, but in the case of those the accounts of which show a *deficit* it is 149, and for those that closed theirs with a profit it is 170.

The food of the least badly off consists of, in the morning, polenta with milk and cheese, at midday, bean soup or maccaroni flavoured with pork and pork to accompany it, in the evening, vegetables and cheese or milk and polenta. They drink wine in winter.

The poorer families, however, eat in the morning only polenta, and often only potatoes, at midday soup, in the evening vegetables or polenta.

Very little is spent on clothing, and expenditure on pleasures is almost unknown ; only the emigrants spend considerably for either of these purposes.

There are no small industries in the province, except in the district of S. Daniele and a few other communes. But this — as has been observed — is an advantage, because generally speaking the average tenant farmers' family even in winter has to give all its attention to agriculture, in order that the farm may be carefully and thoroughly cultivated.

It is only among the emigrants alcoholic tendencies are observed.

Economic Discomfort. — But, the dominant note of the report of the enquiry is the economic discomfort of the peasants of the province. The soil is in the first place little fertile, atmospheric conditions are continually unfavourable, purchase and sale is difficult ; and to this must be added sometimes burdensome conditions of contract, insufficient remuneration and the lack of capital, which is also shown by the short time the tenants remain on the farms, the rural exodus on the part of the most vigorous members of the tenants' families etc.

The Desires of those Concerned. — The enquiry also succeeded in collecting the desires of the tenants, of the landlords and of both groups.

The tenant wants :

Long leases.

Rents in proportion to the yield of the land.

Annual settlement of accounts.

Fair compensation for improvement of the farms.

Fair compensation for building, either for storage or transport.

Abolition of compulsory personal labour.

Abolition of customary gifts or "appendizi".

TABLE III. — Statistics of the Balance Sheets of the Tenants' Households.

Districts	Number of Tenants' Households in the District	Campi Friulani Worked in the District (Campi of 3,500 sq. m.)	Total Yield of Farms Worked — Frs.	Total Expenditure for Purchase of Manure — Frs.	Balance Sheets of Tenants' Households Closed with			General Economic Situation of the Tenants			Do the Tenants Remain Long on the Same Farms		Term of Contract of Lease	Sentiment of the Tenant towards the Landlord		
					Neither Profit nor Loss	Loss	Profit	Comfortable	Unsatisfactory	Yes	No	One Year		More than one Year	Indifferent	Unfriendly
I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Palmanova	680	24,160	3,624,000	250,000	345	193	142	466	214	611	69	670	10	208	74	398
Latisana	556	22,790	3,305,000	210,000	210	206	140	253	303	337	219	546	10	228	173	155
Codroipo	275	11,825	1,500,000	85,000	107	117	51	55	220	202	73	245	30	82	126	67
Udine.	527	18,000	2,300,000	90,000	267	174	86	02	425	354	173	516	11	270	189	68
San Daniele	427	18,000	2,300,000	100,000	97	270	60	147	280	305	122	425	2	202	105	120
Gemona.	65	1,950	275,000	17,000	60	71	25	58	107	120	45	130	35	96	11	58
Tarcento	100	3,020	450,000	24,000												
Cividale.	1,481	44,000	6,160,000	350,000	816	367	298	969	512	1,206	275	1,422	59	798	290	393
S. Vito al Tagliamento	690	40,400	6,400,000	360,000	329	246	115	315	375	569	121	655	55	213	169	308
Pordenone.	755	45,300	6,115,000	400,000	376	247	132	425	330	565	190	752	3	400	70	285
Sacile.	295	17,700	2,020,000	110,000	168	60	67	160	135	160	135	280	15	105	110	80
Maniago.	23	920	101,000	6,000	10	10	3	10	13	—	23	—	23	—	20	3
Spilimbergo	106	4,200	546,000	29,000	57	37	12	71	35	61	45	10	6	45	—	64
Total	5,980	252,265	35,096,000	2,030,000	2,815	1,998	1,131	3,031	2,949	4,490	1,490	5,741	239	2,647	1,337	1,996

Institution of *Agricultural Arbitration Boards*.

Institution of *Distributive Co-operative Societies*.

Institution of *Co-operative Societies for the Sale of Agricultural Produce*.

The proprietors want :

Greater interest on the part of the tenants in the cultivation of the farms.

Greater union and more agreement between the members of the tenants' households.

Maintenance of customary gifts.

Diminution of emigration.

Diminution of rates and taxes.

Both groups desire :

Institution of experimental farms in connection with the schools.

Greater interest, protection and assistance on the part of the Government, Province and Communes for agriculture.

Conclusion. — The Report of the Enquiry ends with the following conclusions and proposals.

(A) As regards all the forms of the tenancy contracts generally:

1st. The rents and the tenants' contributions must not be raised beyond what the yield of the farm and the conditions of the market allow.

2nd. The tenancy contracts must be for a period of years, at least five, with guarantee of mutual observance of the contract and right to denounce in advance if the farm cannot be suitably worked.

3rd. Until arbitration boards are instituted for agriculture, a clause must be inserted in the contract providing for arbitration.

4th. Unremunerated or partially unremunerated personal labour in payment must be limited or abolished.

5th. Fair compensation must be given for improvements increasing the revenue of the farm, in so far as it is not enjoyed by the tenant, and annual payment must be made for improvements increasing the value of the farm.

6th. Accounts must be settled annually.

7th. The landlords must interest themselves directly in the administration and employ their capital more extensively for the work of the farms.

(B) As regards pure or mixed metayage or any form of share tenancy:

1st. Preference should be given generally to pure metayage, with contribution of the livestock by the landlord.

2nd. Rent for meadows should be abolished if the livestock is the landlords'.

3rd. Fair compensation should be given for vegetable gardens, the tenant should not be charged rent for the house, especially if it serves for silkworm rearing or for lodging of the household benefiting no further by it.

4th. Rent of meadows or a share in the cattle foods produced may be allowed in cases of metayage when the horned cattle does not belong to the landlord, in consideration of the charges supported by the tenant in

manuring and the advantages deriving therefrom to the farm and its fertility.

5th. Fair estimate should be made of the materials supplied to the tenant, if necessary or useful for the management of the farm, with no interest charged and fair valuation of the produce delivered by the tenant to the landlord.

6th. Small customary gifts in the form of fowls and eggs may be allowed.

7th. Emigration should not be absolutely forbidden, if an abundance of labourers is assured.

Apart from what may be established in the contracts, the desire is finally expressed that public or social institutions may promote the greatest possible reasonable improvement of agriculture by means of a larger publication of demonstrative examples and by imparting experimental ideas of agriculture in the village schools, the encouragement of the constitution of *co-operative societies* for supply of material in centres remote from the existing agricultural circles, as well as the constitution of co-operative societies for the sale of the produce of the tenants, with increased propaganda in favour of the registration of peasants with the National Labourers' Disablement and Old Age Thrift Institute and by urging the approval of a bill on compulsory accident insurance of farm labourers.

SWEDEN.

THE VALUATION OF THE TIMBER RESOURCES OF THE FORESTS IN THE PROVINCE OF VÄRMLAND.

By Prof. HENRIK HESSELMAN,

President of the Division of Natural Sciences of the Swedish Institute of Experimental Forestry.

The question of determining what ratio the country's consumption of timber bears to the producing powers of its forests has for long been under discussion in Sweden. The country is undoubtedly rich in forests: it is estimated that an area of 21,600,000 hectares (or 52 per cent. of the total surface) is covered with timber. The amount consumed, both for the country's own use and for export is also enormous.

The Swedish trade in wooden articles, paper and the raw material for the manufacture of paper is of great importance in the economy of the country, and it is easy to understand, therefore, that it is a matter of great interest to the people of Sweden to determine with more exactness the real resources of their forests.

The country possesses 392 hectares of timber land for each hundred inhabitants, whereas the corresponding figure for the whole of Europe is only 74 hectares. It may be added that in Sweden the forests are not known with that precision and fulness of knowledge which is the case in Germany and other countries where the population is more dense than in Sweden. Most of the Swedish forest lands belonging to the great saw-mill companies, as well as the State Forests, have been valued, but the forests belonging to private individuals are in general known only very superficially. The accurate valuation of the latter would be an expensive undertaking as these private forests cover a vast area. We have had to content ourselves, therefore, with the determination of their average value which for districts of a certain size such as the Län (provinces), may be considered sufficiently exact. The valuation of the forests of Värmland which follows is in the nature of an experiment which aims at ascertaining the value of the methods selected.

Värmland is one of the forest regions of Sweden of medium size, covering 1,931,352 hectares. The northern part is entirely covered with timber, while in the south, forest and cultivated land is about evenly distributed. Thus the Värmland is typical both of northern Sweden which is very heavily wooded, and of central and southern Sweden where the land

is of mixed type. In the work of valuation this difference in type of country has been taken into account.

The conformation of the district is, as a rule, remarkably regular, the mountain chains running NNW-SSE. In carrying out the valuation, care was taken to select sample zones in the form of narrow strips running obliquely in the direction WSW-ENE, and thus cutting the mountain chains and the valleys. These strips, cutting across the whole province were only 10 metres wide; and as in Northern Värmland they were distant 4 km. from one another and, in Southern Värmland, 2 km., the area valued represented in the one case 0.25 per cent. and in the other 0.50 per cent. of the total surface. The total area actually valued was 6,181 hectares. It becomes necessary, therefore, to determine to what extent an area so small as that actually surveyed can be relied upon to give results, and to see how the accuracy of the results obtained may be controlled.

Within the sample strips, the distribution of forests, swamp land, grass land, cultivated fields and water-courses was determined; an estimate was made of the quality of the woods; and the number of trees, their kind, and the classes to which they were to be assigned according to size, were next ascertained. In each of the classes by size, one trunk in every forty was selected as a sample of the whole, and its volume and rate of growth were determined. For this purpose use was made of a method worked out by the Forestry Expert, Mr. T. Jonson of Stockholm, by which with great accuracy, especially as to volume, it is possible to make a survey even of standing trees. In this way the value was established of 32,746 sample trees distributed throughout the whole of Värmland.

The actual field work was carried out by parties of nine persons including a leader, who was in every case an expert forester. The sample strips were traced with the help of the compass and good maps, and were afterwards measured with the chain, all the work being carried out, as has since been proved, with extreme accuracy.

In order to control the results, use was made of the formula for the calculation of probabilities, and for the purpose, the sample strips were divided into lengths of one kilometre. As the strips were 10 metres wide, each length of one kilometre was equal to one hectare. In order to ensure the symmetrical arrangement of these sample plots a line was traced at right angles to the sample strips, at the point of intersection of a survey line passing through the centre of Värmland and the central meridian of the province (5° W of Stockholm). Starting, from this line, the sample strips were divided into lengths of one kilometre. Each section or sample plot thus marked out had two numbers assigned to it, of which one referred to the sample strip to which the section belonged, and the other indicated the distance from the above-mentioned central line cutting the sample strips. A separate record was drawn up for each sample plot.

In the calculation of probabilities the sample plot were classified in groups, each group made up of plots distributed regularly throughout Värmland. Each group formed an independent survey, which included,

naturally, a more limited survey unit. The average of the various groups was ascertained, and from this was calculated the average error, according to the difference shown between each group and the average ascertained. For the estimation of the results of the forest survey of Värmland, a more simple subdivision of the surface to be valued was adopted, the sample strips being grouped in the following manner: the first group consisted of the strips 1, 11, 21, 31... etc.; the second of the strips 2, 12, 22, 32... etc., and so on. In this way the general survey was divided into ten partial and independent surveys each consisting of one tenth of the surface to be surveyed; and it was upon this basis that the mean error of the result was calculated. It was found that the distribution of error followed very closely the law of probability.

Comparing the determination of areas made by the above-mentioned system, and that obtained in the survey of the Economic Section of the Topographical Bureau, it was possible to establish the fact that the actual errors were less than three times the mean error. The above-mentioned Topographical Bureau has published an excellent map of Värmland upon which water-courses and sheets of water, land under cultivation, unbuilt-on land, etc. are all clearly and accurately indicated. We give below particulars as to the surface of the land as obtained by the method we have described, the mean errors and the real errors resulting from a comparison with the data of the Topographical Bureau:

	Surface — (Hectares)	Mean Error — (as calculated)	Mean Error — (as ascertained)
Cultivated land	249,520	+ 1.27 %	+ 1.42 %
Water-courses, etc. . .	180,022	+ 3.68 %	+ 1.41 %
Unbuilt-on land	1,499,328	+ 0.51 %	+ 0.31 %

As may be seen the actual errors in no case exceeded three times the mean errors, and as a rule they were very small indeed.

The forest land of which the surface has not yet been measured according to the strict principles of forest surveying, covers an area of 1,194,806 hectares.

It has been found that, despite the relatively small area valued, the results obtained, as regards the volume of standing timber, its classification according to size of trees, kind of trees, and rate of growth, etc. are remarkably accurate. The mean error does not exceed 1.5 per cent. a result which must be regarded as excellent. We give below the principal results, with the indication of their probable accuracy according to the means errors.

The volume of wood amounted to 81,892,746 cubic metres ± 1.29 per cent., without counting the volume of bark. If the latter be added, the

volume reached 96,465,000 cubic metres. The total was distributed, according to kind of wood, as follows:

Fir	48.43 per cent	\pm	0.44
Forest pine	37.10 per cent	\pm	0.45
Other kinds (birch, alder and aspen)	14.47 per cent	\pm	0.46

Fir is, therefore, the most important, followed by forest pine. As is shown by the smallness of the mean errors the distribution according to kind has been made very accurately. With regard to volume of wood per unit of area we have the following results:

Volume of wood per unit of wooded area. . 66.06 cu. m. \pm 1.45 per cent.
 Volume of wood per unit area of actual forest 66.6 cu. m.

What is important with respect to the forests of Värmland is that the classes of youngest trees and of smallest trees are of great importance. They form a very considerable part of the total volume of wood, a circumstance which is explained by the fact that, following the heavy cutting of the forests towards the middle and the latter half of last century, reforestation was undertaken on a vast scale. The youngest growth is also, in general, of very good formation, so that upon the whole, the result may be regarded as satisfactory.

The forests have a rate of growth of 3.54 per cent., equal to a volume of 2,744,541 cubic metres \pm 1.03 per cent. These figures relate to the wood alone and do not include bark.

According to the most reliable data at our disposal as to the consumption of timber in Värmland, the growth just balances the consumption. To the amount actually consumed it is necessary to add a considerable quantity of wood which is destroyed, without serving any useful purpose, as the result of decay or of fungus growth. It happens, for example, that the more feeble trees decay during the growth of a plantation before they attain to a serviceable size, and again, in some parts of Värmland, woods of birch and aspen are of no commercial value owing to the lack of means of transport. Any estimation of the amount of serviceable timber available which is based on the rate of growth is, therefore, necessarily exaggerated.

The Commission which carried out the survey of Värmland forests has drawn up a scheme for the carrying out of similar surveys in all the Swedish forests. We may here note the main lines of the project.

In determining the area of valuation of the different "Län" or districts, the experience gained in connection with the survey of Värmland is to form the basis. The northern part of this region has been taken as typical of central and southern Sweden. For each of these two zones the mean error in determining the area of timber land, of marsh land, etc. at the point where the sample strip reached one kilometre of land of either kind, has been calculated. This mean error expresses the influence exerted by the irregular distribution of the different types of land upon the survey of

the whole surface by the method described above. In applying the law of probabilities the extent of the area which it was necessary to value in order that accurate results might be obtained, was next calculated. In a region of the nature of the northern Värmland it was found that in order to bring the mean error below 1 per cent. it was necessary to value an area of 810 hectares of timber land. Where, as often happens, the forests form 60 per cent. of the total surface, it would be necessary to value an area of 1,350 hectares. The only convenient method, therefore, is to plot symmetrically on the surface to be valued a number of regular strips, as was done in the case of the Värmland. For a region of the type of the southern Värmland it would be necessary to value an area of 1,960 hectares of timber, that is a total surface of 4,900 hectares, in order to ensure that the mean error did not exceed one per cent.

Now it has been established that for the determination of the volume of wood it is necessary to make use of a sample area much greater in extent than that which will suffice when only the determination of the area of wooded land is in question. In calculating the valuation areas necessary in the different "Län," the mean errors involved in the determination of the volume of wood have been taken as the point of departure. A valuation of volume with a mean approximation of one per cent. requires in Northern Värmland a valuation area of 4268.4 hectares, and in Southern Värmland of 9,790.6 hectares. It is true that it has not been considered necessary to carry the approximation so far and that an approximation involving a mean error of from 2 to 3 per cent. is considered sufficient; and it is on this basis that the survey of the sample areas necessary in the different districts has been proceeded with. In laying out the sample strips, care has been taken to distribute them uniformly over districts as wide as possible. Thus, in Norrland and in Dalarna the sample strips run in the same direction, namely, NNE - SSW. In the two northern districts they are distant 20 km. and in the other districts 10 km. from one another. In the other districts of Sweden, except in the island of Gotland, the strips are separated by a space of 5 km. In the eastern part of Sweden the strips run E and W; in the western part they run NNW - SSE. In the island of Gotland the strips are not more than 2 km. apart, and run E and W. There is a double reason why the strips should be closer together in the south of Sweden than in the north: the districts of the north are at once more thickly wooded and larger in area than the southern districts. The area which it is intended to survey in the projected scheme is 43,550 hectares.

The Commission calculate that the cost of carrying out the work, if it is to be completed within ten years, will be 818,000 crowns, and 843,000 if it is intended to complete the survey within the space of six years. In these calculations the cost of elaborating the results of the survey has been included.

SWITZERLAND.

LAND IMPROVEMENT IN SWITZERLAND.

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The duty of the encouragement of land improvement by the Confederation was first recognised in the Federal Decree of July 27th., 1884 on agricultural improvements. From that date most of the Cantons have also adopted measures for the encouragement of this branch of agricultural work. In the message addressed to the Chambers on December 4th., 1884, in support of the proposed Decree, the Federal Council defined the duty of the Confederation, declaring that subventions for land improvement might be granted in the case of undertakings of a certain size. The object is the improvement of agriculture, it was stated, not the assistance of the farmers, just in the same way as the prizes for livestock improvement can not be considered as alms. The subsidies must be proved also to be for the general interest.

The expenditure required for the encouragement of land improvement was at that time estimated at 100,000 frs. a year. The cantonal subsidy was to be at least equal to that of the Confederation, the amount of which however, was never to exceed one third of the total expenditure. But the Chambers went further than the Federal Council and in the Decree it was laid down that the subsidies given by the communes and corporations could also be taken into account in estimating the amount of the federal subsidy, which was fixed at a maximum of 40 %.

In 1893 the above Decree underwent revision, as a result of the motion (Curti and others) presented on June 8th., 1891, asking for more favourable conditions for land improvement undertakings for obtaining the fed-

eral subsidies. In its message of November 28th., 1892, the Federal Council recognised that as a matter of fact the credits granted for land improvement had not up to the present been profited by to the degree anticipated. The following figures indicating the amount of subventions granted between 1885 and 1891 show to what extent the credit had been drawn upon :

1885	Fr. 1,456
1886	» 24,814
1887	» 595
1888	» 20,606
1889	» 19,843
1890	» 19,874
1891	» 29,970

However, the Federal Council was unable to favour an improvement of the conditions, in the sense of reducing the charges to be borne by the Cantons and increasing those to be supported by the Confederation. It judged that if the credit was not profited in larger proportion, that was because all innovations of the kind require time before they become known and popular in the whole of a country, and also because in many cantons no legal provision had been made for the execution of important works of land improvement. The message further established various principles, still in force to-day, such as, a work of land improvement is not to be carried out unless it may be presumed that the increased value of the land due to the improvement will be able to serve for the payment of interest and the amortisation of the capital invested. Consequently subventions can only be allowed by the Confederation in the case of undertakings the return from which may be considered as assured. The State subsidies are intended to facilitate the proper execution of the land improvement works and to ensure the execution of undertakings requiring the concurrence of many land owners.

The message then laid it down that financial participation on the part of the Canton is a *sine qua non* for the grant of the federal subvention. The Confederation must in fact have a guarantee that the plans for land improvements, before being submitted to it, have been examined by the competent authority and that the works will be supervised by it. This object can only be attained if the cantons also have a financial interest in the works.

This view was shared by the Federal Chambers and thus the provisions proposed by the Federal Council were adopted without amendment and were definitely embodied in the law of December 22nd., 1893 on improvement of agriculture by the Confederation.

We reproduce below the provisions in question as well as those of the Executive Regulations of July 10th., 1894.

Federal Law of December 22nd., 1893 on Improvement of Agriculture by the Confederation. (C) Land Improvement.

Art. 9. — The Confederation shall subsidise, under the following conditions, undertakings for the purpose of land improvement and the facilitation of agriculture.

(a) Applications for subventions must be submitted by the Cantonal Governments to the Federal Council before the work is commenced; these applications must be accompanied with the necessary information in regard to the nature, importance and cost of the works to be carried out, with supporting documents.

(b) The subsidy granted by the cantons, communes or corporations must be at least equal to that of the Confederation. The latter must not, as a rule, exceed 40 % of the total costs. The Confederation shall not contribute to the cost of maintenance of the work. In exceptional cases and in case of necessity, a subsidy from the Confederation, up to the amount of 50 % of the real expenditure may also be granted to syndicates and corporations to the works undertaken by which the canton or commune does not contribute or only contributes a smaller amount, provided that the work is well carried out.

(c) In each particular case the cantonal government must engage to maintain the works of improvement carried out, reimbursing itself from the communes, corporations or individuals.

(d) The federal subsidy shall be paid, as a rule, after execution of the works and their inspection by the federal authority.

Art. 10. — The Federal Council shall every year fix the amount of the subsidies to be granted to the various Cantons, on the basis of the amount placed on the estimates for land improvement.

Art. 11. — The Federal Council may engage the technical staff required for the examination of the applications for subvention and for the chief supervision in this field, as required. The Federation shall contribute to the costs of the preparatory technical works, as provided in article 9. It shall assign to the Cantons, which alone or in concert with other Cantons employ specialists, subventions of amount up to 50 % of the remuneration granted to these functionaries.

Executive Regulations of July 10th., 1894. (C) Land Improvement.

Art. 44. — Applications for subsidies towards payment of expenses for works of land improvement must be addressed to the Federal Department of Agriculture before the works are commenced.

With these applications information must be supplied :

(a) in regard to the proprietors, the situation (on the Dufour or the Siegfried map) and area of the farms to be improved ;

(b) the nature, the necessity and the extent of the works to be carried out.

(c) the amount of the subsidies granted by the Canton or other corporate bodies having themselves no interest in the land in question ;

(d) the person to whom the delegate appointed by the federal authority must address himself before proceeding to study the plan and in order to obtain the requisite information.

Art. 45. — Applications for subsidies for works of drainage or irrigation, road construction, redistribution of parcels, etc., must be accompanied by plans or copies of plans on tracing cloth on a suitable scale (as a rule, 1 : 1,000), folded to the size of ordinary documents (as a rule, 25 × 35 cm. or at most 27 × 40 cm.).

The plans for drainage must show the contour lines, and the depth and slope of the cuttings, the angles of inclination, the calibre of the drain pipes and the points at which soundings have been made and the ground examined.

The plans for the other works above mentioned must be accompanied, as required, by longitudinal and transverse sections.

Applications in relation to the improvement of mountain pastures must be accompanied, if they relate to the land, with outline plans established in accordance with those in the cadastre, if there are any, or the Siegfried map, and, if they relate to buildings, with plans or customary copies (also of the size of documents) and the necessary indications.

Art. 46. — The Federal Department of Agriculture is also authorized in exceptional cases to examine applications not accompanied by definite plans, and, subject to the definite decision of the Federal Council, to take them into consideration and fix the amount of the federal subsidy to be given for the preliminary studies and the preparation of plans and estimate.

Art. 47. — The Federal Council, on the proposal of the Department, on the basis of the plans and the estimate of expenditure, shall decide both in regard to the grant of the federal subvention itself, and the maximum amount or the contribution of the Confederation, within the limits of the maximum fixed by the federal law of December 23rd., 1893 on improvement of agriculture by the Confederation. For the estimate of the federal subvention account can only be taken of the actual expenditure shown in the accounts.

Art. 48. — The Canton, when it accepts the federal subsidy, shall engage for the supervision of the work by competent men and assure its maintenance in good order.

Art. 49. — The amount of the subsidies that can be granted for the remuneration of the agricultural engineers engaged by the Cantons shall be fixed by the Federal Council. These subsidies shall only be paid in proportion to the work done by the officers or employees in connection with rural engineering.

The only new provision in the law of 1893 still in force relates to the grant of federal subsidies up to a maximum amount of 50 %

(a) of the expenditure required for the execution of land improvement works by syndicates or corporations receiving no subsidy, or an insufficient amount, from the Canton or Commune,

(b) of the remuneration granted to the cantonal agricultural engineers.

The Federal Council, however, has not thought fit — in consideration of the consequences it would entail — up to the present to avail itself of the right of granting subventions to undertakings not benefiting by an allowance from third parties not interested. And it is only in exceptional cases such subventions could be granted. On the other hand, contributions out of the federal funds have been made towards the remuneration of agricultural engineers; these grants have induced more than half the cantons to found land improvement services.

While in 1895 there were only two cantons that had rural engineering bureaux, in 1912 there were thirteen. The contribution of the Confederation towards the remuneration of the technical staff of these bureaux in 1912 was 42,877.40 frs. It is evident that the effect of the foundation of these bureaux on the plans of land improvement has been good; the plans are now better prepared and better thought out than those formerly presented, the authors of which often had not the necessary technical knowledge. We may say that now the proposals submitted to the federal authorities are almost all made out after a perfect system. Their number has increased considerably. When the farmers could see for themselves the results obtained by such or such an undertaking for land improvement, other projects were started everywhere on the landowners' own initiative. In this field also example has done more than precept. Some cantons have also established a rural code the provisions of which have largely assisted the formation of new undertakings. We give below a few figures to show the increase in the number of undertakings promoted and carried out.

1885	10	1905	308
1890	40	1910	311
1895	133	1912	419
1900	159		

The amounts of the federal subsidies paid for undertakings carried out have increased in even larger proportion, although the conditions for the grant have not been changed.

The payments made were as under :

	Frs.
1885	1,456
1890	19,874
1895	181,389
1900	341,189
1905	477,573
1910	662,619
1912	1,273,233

Whilst the principles followed in granting the subsidies have remained the same, there were some changes made in respect to the calculation of the rate of the subvention, between the year 1885 and 1912.

At first, the subsidies sometimes amounted to 40 % of the actual expenditure (all legal conditions being satisfied). In time, the maximum subsidy was only very rarely granted, since the credit granted by the Chambers, though it had been considerably increased, had to be economised owing to the increase in the number of applications for subventions. It is true that, in establishing the federal subsidy, the amount of the cantonal subvention has almost always been taken into full consideration, whilst account was not taken, or only to a certain degree, of the subsidies granted by the communes or corporations. Especially were the subsidies refused when money was advanced by anyone who had interest of any kind in the undertaking.

The amount of subvention is calculated, within the limits allowed, according to the expenditure for the preparation of the scheme and estimate, the outline plan, the execution of the work and its immediate supervision.

On the other hand, no account can be taken for the purposes of the federal subsidy:

(1) of expenses in connection with other preliminary works, the time taken by the authorities, the sessions of commissions, loans, interest etc;

(2) of expenditure occasioned for purchase of land, unless the parcels had to be bought from third parties not interested in the undertaking and to ensure the execution of the proposed improvement works;

(3) the value of the materials supplied by the owners of the land to be improved, such as wood, stones, gravel or sand, or the value of the labour they supply, except in the case of syndicates working under the constant supervision of agents of the State, and when the work has not been in preference given out on contract;

(4) of very small undertakings for which the expenses of study, supervision and execution of the work as well as the permanent supervision of its maintenance would be out of proportion to the real yield;

(5) of trenching land, sowing and any other preparation for farming;

(6) of the extirpation of weeds or plants other than ligneous;

(7) of the planting of hedges or the erection of wooden fences.

As a rule, undertakings, requiring the formation of special syndicates, benefit by large subsidies; in fact, as the formation of these associations is often impeded by the expenses, it has to be encouraged. In the same way, if, owing to special circumstances, a scheme necessitates expenses out of proportion to the area, volume etc., it is attempted to reduce them by the grant of a higher federal subsidy.

This financial intervention of the Confederation in behalf of land improvement, which has met with unhoped for success, was most happily completed by various provisions of the Swiss Civil Code (Federal Law of December 10th., 1907).

Thus, articles 690-693 establish the principle that a landowner is obliged to receive the water drained off from a higher holding and establishes the conditions;

Articles 702 and 703 make the participation of the landowners interested

in various undertakings for land improvement, including the redistribution of parcels, obligatory under certain conditions ;

Articles 802-804 contain provisions relating to the transfer of the mortgages on real estate at the time of the redistribution of parcels.

Articles 820 and 821 create preference rights in favour of mortgages constituted in consequence of the increased value of a holding due to the improvement of the land ;

Finally, article 954 provides for the exemption from payment of charges for entries in the land register in consequence of land improvement or of exchange of land for the purposes of readjustment.

It is true that the effect of the provisions we have just mentioned will only be felt in the course of years. The results obtained up to the present in land improvement are due to the various measures previously adopted by the Confederation and the Cantons amongst which the grant of subsidies is of most importance.

In the period from 1885 to 1912 the following works were carried out with the help of the federal subsidies :

A. — *Land Improvement in the Plains.*

	Total Expenditure	Federal Subsidies
1. Drainage and Irrigation fr.	13,322,701	3,803,692
2. Road Construction »	2,279,384	679,088
3. Redistribution of Parcels. »	2,822,337	1,036,127 (1)
4. Other Land Improvements »	2,339,544	625,726
Total fr.	20,763,966	6,234,633

B. — <i>Improvement of Alpine</i>		
<i>and other Pasture Land fr.</i>	14,108,687	3,245,305
Total fr.	34,872,653	9,479,938

In spite of all the measures passed for the encouragement of land improvement, the number and importance of these undertakings in Switzerland would not have been so great if the farmers had not been stimulated by

(1) See in this connection the article by M. Disereus " *The Restriping of Holdings: its Present State and Practical Results* " in the *Monthly Bulletin of Economic and Social Intelligence*, IVth. Year, March, 1913, pp. 128-152.

example. Many schemes, among which we include also those executed without State subsidies, were only undertaken after the parties concerned were able to see the results obtained by other land improvement works.

Nevertheless, there is still much to be done in this field. Apart from numerous small undertakings there are also large land improvement schemes awaiting execution. It is evident that many of them cannot be studied before the work of the regulation of streams, which often has to precede the work of land improvement, has been carried out. Now many streams have been regulated in the course of the last few decades ; so it is possible to begin and bring under cultivation large areas, the increased yield of which will in some part justify the heavy expense of this regulation.

As the produce of the soil increases and the land is better worked, it will provide work for more labourers and support a larger population. The rural exodus will also be checked and the population will be better assured of its food supply. Any sacrifices made will thus have been made in the interest of the country itself and for the protection of the State. They will constitute a well invested capital, which will yield a large interest for Swiss national economy.

* * *

In order to complete the information here given in regard to (A.) *The Land Improvements in the Plains* and (B.) *The Improvement of Alpine and other Pasture Land*, carried out with the help of federal subsidies, we summarise in the following table the works carried out between 1885 and the end of 1912, grouping them according to the nature of the improvements.

Land Improvement in Plains and on Mountains between 1885 and the End of 1912.

According to the Nature of the Improvement.

Nature of the Improvement	Area or Length	Work Carried out		Subventions from			
		Number	Expenditure Entitling to Subventions	Con- federation	Canton	District, Commune, or Corporation	
			Fr.	Fr.	Fr.	Fr.	
(A) Improvements in the Plains :							
1. Drainage.	ha.	16,654	1,484	11,451,805	3,273,438	2,854,456	645,159
2. Irrigation	ha.	4,627	57	645,304	215,835	19,451	213,564
Irrigation Canals, "bisses" etc.	m.	27,646	14	267,317	91,668	21,982	73,000
3. Canals and Canalisation	m.	98,803	73	958,275	312,751	271,010	52,458
4. Redistribution of Par- cels	ha.	6,893	133	2,822,337	1,036,127	740,863	345,844
5. Road Construction . .	m.	227,302	155	2,279,384	679,088	467,874	470,910
6. Restoration of the Con- dition of Land. Warp- ing etc.	ha.	1,439	209	1,657,229	423,189	349,235	77,978
7. Other Improvements .	—	—	213	682,315	202,537	161,340	50,372
	—	—	2,338	20,763,966	6,234,633	4,886,211	1,929,285
(B) Improvement of Alpine and other Pasture Land.							
1. Drainage.	ha.	760	250	632,830	143,822	134,271	12,971
2. Irrigation	ha.	304	42	52,831	15,999	7,368	11,606
3. Canals and Canalisation of Streams	m.	(m.8,723)	(7)				
4. Road Construction: Roads for Manure etc.	m.	6,832	10	35,984	8,991	7,683	2,017
Alpine Roads . . .	m.	398,818	442	1,010,148	242,922	207,849	57,407
Aerial Ways	m.	657,851	169	2,802,970	685,846	583,230	169,015
5. Building of Chalets . .	m.	54,202	22	89,972	21,980	20,382	4,612
Manure Pits	c.m.	134,507	955	5,762,046	1,287,375	1,069,221	294,950
6. Enclosure and Re- taining Walls	c.m.	3,547	132	135,044	26,710	24,694	2,469
7. Clearing and Removal of Stones	m.	91,258	181	341,087	77,271	73,711	7,255
8. Water Pipes and . . .	ha.	6,699	595	1,024,009	231,013	197,506	52,853
Tanks etc.	m.	620,409	896	1,964,304	448,886	354,221	135,878
9. Other Improvements .	c.m.	3,634	90	189,726	39,392	36,482	3,111
	—	—	13	67,736	15,098	15,027	—
	—	—	3,803	14,108,687	3,245,305	2,731,665	754,142
(A) Improvements in the Plains							
	—	—	2,338	20,763,966	6,234,633	4,886,211	1,929,285
(B) Improvement of Alp- ine and other Pasture Land							
	—	—	3,803	14,108,687	3,245,305	2,731,665	754,142
Total . . .	—	—	6,141	34,872,653	9,479,938	7,617,876	2,683,427

To supplement this table we reproduce below the figures for the total expenditure of the Confederation on land improvement between 1885 and 1912, as given in the *Annuaire agricole de la Suisse* (fifteenth year, 1914), published by the Federal Department of Agriculture.

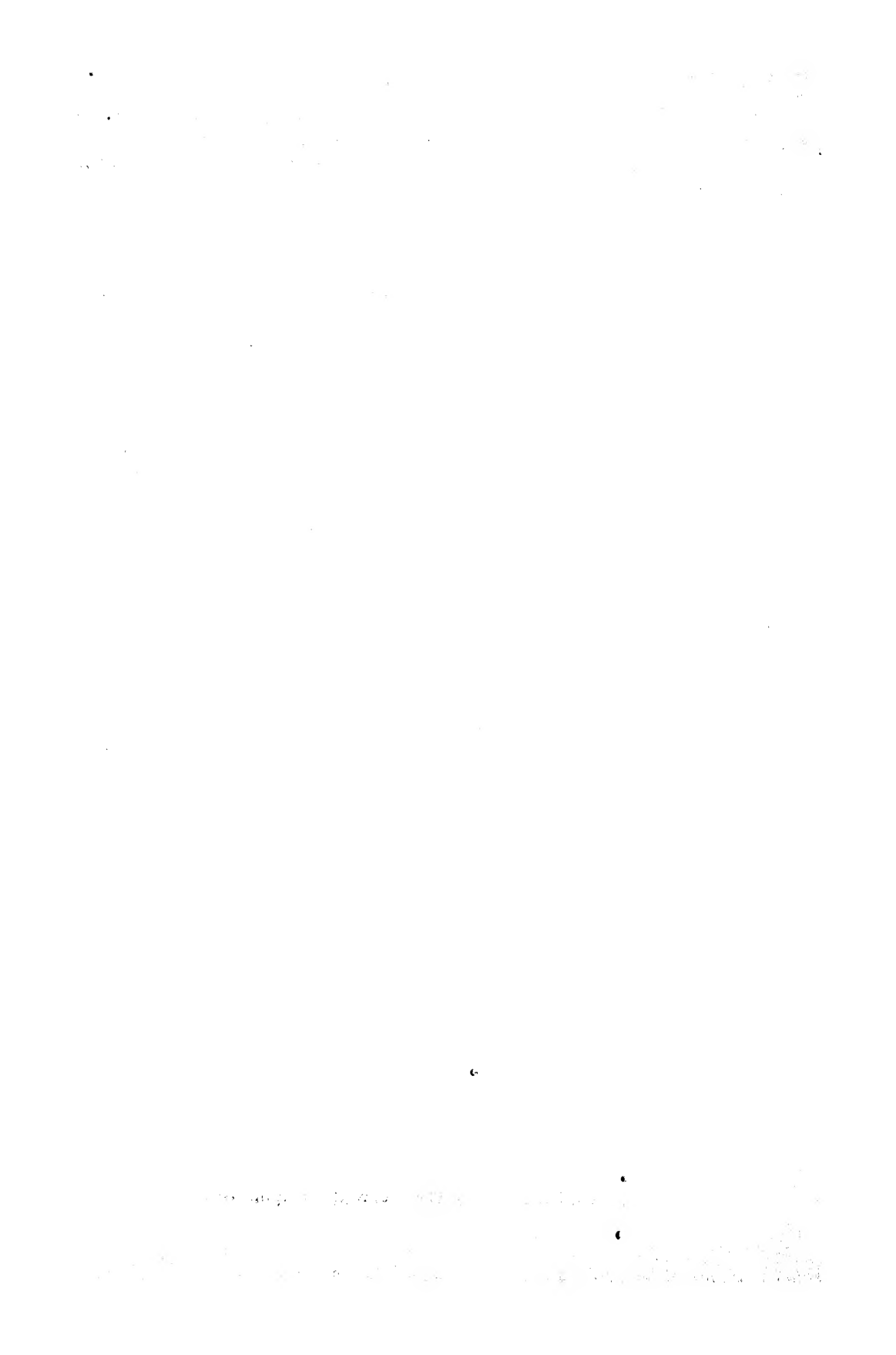
Expenditure on Land Improvement, 1885-1912.

Years	Federal Subsidies to Undertakings	Federal Subsidies to Rural Engineers. Contribution to Salary	Expenditure for Survey	Contribution to the Land Improvement Fund	Total according to the State Accounts
1885-1912	10,155,764	372,295	47,936	180,039	10,756,036

The slight difference in the figures in these two tables is due to the inclusion of the advances to undertakings not yet terminated in the total amount shown in the second table.

The "*Bericht des Schweizerischen Handel-, Industrie-und Landwirtschaftsdepartement*" for the year 1914 contains information relating to the subventions granted by the Confederation in the years 1913 and 1914 for land improvement in 23 cantons. The following table gives a summary.

Number of Cantons	Year	Number of Schemes	Subventions Assured	Subventions Paid
23	1912	419	1,471,960	1,273,232
	1913	330	1,217,392	1,114,047
	1914	275	1,227,102	1,142,528



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Part I: Co-operation and Association

DENMARK.

CO-OPERATIVE DAIRIES IN DENMARK.

(This Article has been prepared at our request by the Danish Bureau for the International Institute of Agriculture).

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§ I. HISTORICAL SUMMARY.

During the last 25 years of the last century the competition of America was very much felt on the European market, and Denmark, an eminently agricultural country, was one of those to suffer most severely. Then, as now, Danish farmers were forced, in view of the relatively insignificance of the national market, to endeavour to find a sale abroad for a large part of their produce, and thus to depend to a considerable degree on the prices on the international market. Up to that time, the cultivation of cereals had formed the basis of Danish agriculture, for the high price of the produce, had made it especially remunerative, and then the new methods of farming, marling, and technical improvements had increased the yield of the soil, without it, however, being necessary to manure it more abundantly. It is true people began to see that they must not deceive themselves in regard to the possible duration of such intensive farming; that the exclusive cultivation of grain must be abandoned and that livestock improvement deserved greater attention; but between 1870 and 1880 the most prominent farmers still considered the sale of grain as the principal source of their revenue and livestock improvement only as an auxiliary industry, necessary in order to obtain the manure indispensable for the soil. But American competition began to be felt precisely on the grain market, causing a considerable and lasting fall in price, whilst animal produce was still sold at almost the same figure as before. The following table clearly shows the fluctuations in prices.

*Average Prices shown by the "Kapiteltakst" (1)
for each ten years' period between 1860 and 1910.*

	Grain				Animal Produce	
	Rye	Barley	Oats	Wheat	Butter	Pork
1860-70	12.83	10.06	6.72	17.44	0.65	0.43
1870-80	13.77	12.18	8.05	18.98	0.84	0.53
1880-90	11.87	10.06	7.20	13.74	0.90	0.51
1890-1900	10.52	9.36	7.02	11.52	0.95	0.46
1900-1910	10.77	10.28	7.36	12.38	0.99	0.55

These reduced prices necessarily led to a change in the class of production. It was not possible in Denmark, as it has been in various other countries, to protect the national grain production artificially by means of prohibitive customs dues, for the country exported grain in excess. Dairying and livestock improvement had henceforth to be the basis of agriculture; but it was necessary for the purpose completely to reorganize agriculture. A change of this nature was in some sort facilitated by the fact that the

(1) Figures shown in the "Kapiteltakst", that is to say the official Registers, as the average for the Kingdom.

supply of livestock had been gradually increased, as the consequences of an exclusive and exhausting cultivation of grain were perceived; but, on the other hand, agriculture was threatened with a crisis, the whole bearing of which it was not easy to appreciate, for the large land owners could indeed reorganize their farms with comparative ease (they had already a large supply of livestock, and comparatively perfect dairies, which allowed of their receiving good prices for their butter), but it was quite otherwise in the case of the small and medium sized farms, which preponderate in Denmark. On these farms, independent dairying as carried on by the large farmers, and up to now also on properly managed farms, could never have been remunerative. On the one hand, the equipment and working would have been too costly in proportion to the production of milk; on the other, the butter could not have been sold under suitable conditions, unless large quantities of uniform quality could be continually supplied. The butter had to be sold to local purchasers, who had to sort it, manipulate it and pack it for export. Under such conditions it was not to be expected that it could reach the foreign consumer sufficiently fresh, without taking into account that all this passing through different hands, while itself expensive, must reduce the producer's price. Generally, also, the dairying was not carried on scientifically on the small farms and the butter the peasants supplied was extremely inferior in quality and its sale on the English market almost impossible. In this way, Danish butter generally lost the reputation it had had, so that even excellent well made butter from the large landed gentry's farms, had to go abroad under borrowed names, as "*Kieler-butter*" (Kiel butter). The ordinary price of the peasants' butter in the country itself was from 40 to 60 oere per kg. less than that of good butter from gentlemen's farms, and the price of the peasants' butter was always far lower, even if it happened to be as good as the other.

Whilst the low price of grain inevitably drove them to the dairy industry, the owners of small and average farms found themselves obliged to reorganize their dairies completely, so as to raise the quality and price of peasants' butter to the level of the quality and price of that of the gentry. This was the fundamental condition for the desired transformation and necessarily implied the adoption of dairying on a large scale. That had not been possible as yet, and the small farmers had not been able to profit like the large landed gentry by the new conquests made in practical science by Professors Th. R. SEGELCKE and N. G. FJORD of the Higher Agricultural and Veterinary School. It was due to the work of these professors that the butter of the landed gentlemen's estates became equal in quality to that of Holland, considered up to then as the model, and that its value was recognised abroad. This persistent activity provided a solid basis for the introduction of dairying on a large scale, which was also favoured on the technical side by the invention of the centrifugal cream separator (1). It thus became possible to

(1) A continuous working automatic centrifugal cream separator was first constructed by the Danish mechanician, L. C. WIELSEN, and in the course of subsequent years it was so far improved that it is still today in use.

treat large quantities of milk rapidly and properly, and to make good butter for export, whilst at the same time the milk yielded 10 % more butter than by the former methods.

Towards 1880, a large number of dairies worked in common, called *Faellesmejerier* were founded; consortiums, or private individuals equipped dairies for their own account, and bought and collected the milk of the farmers of the neighbourhood. These dairies, however, as a rule, lasted only a short time. For want of capital, the equipment was often at first insufficient and the work could only proceed by means of large loans at too high interest. Any possibility of returns from these private undertakings was prevented by the intense competition and the very imperfect means of communication available, which implied too high cost of transport. It was besides difficult to induce the suppliers who were not directly interested in the yield of the dairy to give all the necessary attention to the manipulation of the milk and above all to provide milk that could give butter of good quality. The owners of dairies, who, above all in view of the serious competition between them, were dependent on their suppliers, could not guarantee themselves against loss through too thin or actually adulterated milk, as they did not yet base the price on the quantity of butter fat in the milk. It was, finally, difficult to find suitable utilisation for the separated milk and whey, which had to be used for making cheese or as food for pigs. Cheese-making became soon, owing to excessive production, unremunerative; then the whey, available in large and increasing quantity should have been utilised for feeding pigs, but the stock of these animals would have had to be increased to such an extent, and the expense of equipment and of purchase of grain and other supplementary cattle foods would have been so great that the finances of the dairy would not have been sufficient.

It was soon seen, for the above reasons, that this manner of collective dairy farming could not succeed or, in any case, not as quickly as the situation demanded. Association among the farmers could alone attain the end contemplated. The first co-operative dairy was founded in 1882 and the extreme rapidity with which the example was followed in every part of the country showed clearly enough that the right course had been at last adopted. Ten years later there were no less than 800 co-operative dairies and many districts had already the maximum number their dairy produce would allow. The good example could not have been followed more promptly.

The co-operative dairies escaped the difficulties that had impeded the progress of the dairies worked in common. The members having a joint interest in the dairies, and being consequently jointly and severally liable, it was always possible to obtain the capital in the proportion necessary at reasonable interest. The separated milk and whey, the utilisation of which had been a difficulty for the dairies worked in common, were returned to the producers, who were thus enabled to use them on their own farms for feeding calves or pigs. It was besides of the greatest importance that the producers of milk should be immediately interested, through their co-operative dairies, in the making of the butter. Each producer had thus a positive

interest in supplying the purest and best manipulated milk possible, and had also every interest that his neighbours and those jointly interested with him should not be able to reproach him with having supplied bad quality milk. These circumstances necessarily assured the victory of the co-operative system. It must further be recognised that if this system has obtained such popularity and has been so successfully applied that it is difficult to find in these years a single case in which the work of the co-operative dairy has had to be abandoned, or has not given a profit, it is due to other than these purely economic reasons. The scientific work of the above mentioned professors must not be forgotten. Their work consisted above all in experiments carried out on an extensive scale in well managed dairies belonging to large farmers and in close co-operative relation with the agricultural organizations. Frequently farmers have placed their farms at the disposal of scientists for the purpose of experiment, receiving no compensation except for the expenses really incurred. This intimate co-operation of scientists and practical farmers led not only to practical and scientific results of the first importance, but also to the publication of these results, at the same time as it aroused and maintained among the people a lively sympathy for and a real interest in scientific dairying. Such being the situation, under the pressure of economic conditions, an example, — a successful effort, — sufficed to start the movement and assure the rapid progress of the new organization. The combination of theory and practice, which is a trait perhaps characteristic of Danish agriculture, has had an essential part in developing dairying, especially at the beginning of the work of the co-operative dairies. It was almost always the scientists who devoted themselves to the solution of the problems involved in the practical development of the dairies and prepared the way for their progress ; but it was the practical men who intelligently applied their theories.

The schools of agriculture and the higher popular schools have not been of less importance ; it is from them that a generation of young peasants has come forth, intelligent, skilful and well informed, who have been able to organize and manage the new co-operative societies, although the multiform duties of the manager of a dairy differ so profoundly from the ordinary work of a farmer. The schools have also prepared a large number of dairy assistants who have become technical managers of dairies.

The rapid and assured progress of co-operative dairies has been much facilitated by the fact that the movement from the start took so reasonable and practical a course. The first of these societies could in all essentials be taken as a model for the rest, as regards both its co-operative and its technical organisation. Add to this, the thrift and economy that characterised the earliest undertaking. The buildings were small and unpretentious, the equipment as simple and limited as possible. Perhaps, it was found, later on, that there had been an excess of economy ; but this parsimoniousness in any case prevented perilous reverses and at the same time permitted the societies, in proportion as the constantly larger number of adherents and the increasing supply of milk made it necessary to enlarge

the buildings, to introduce new and improved machinery and make other improvements without being hampered by the amount of capital invested in the original equipment. This was the more important, as precisely during these early years, great advances were made in the technical field.

Many reasons therefore contributed to the rapid progress of co-operative dairies. The details of this progress are not known to us. We possess no statistics for the early years. According to the industrial census of 1906, the 1,070 co-operative dairies then existing were distributed as follows, according to the date of their foundation.

Year of Foundation	Number of Co-operative Dairies	
	Total Amount	%
Before 1886	86	8
1886-90	628	58
1891-95	169	16
1896-1900	119	11
1901-95	68	7
Total	1,070	100

Thus most of the co-operative dairies were founded between 1886 and 1890. Since the latter date the number of new foundations has continually decreased, but a certain number of new societies have been formed by the division of those already existing; at the same time the dairies worked in common and those on gentlemen's estates have continually decreased in number and have lost their importance. We show below the number of dairies of each kind.

	Year 1900	Year 1909
Co-operative Dairies	1,029	1,157
Dairies Worked in Common	266	235
Dairies on Gentlemen's Estates	264	90
Total	1,559	1,485

At the same time, the proportion of farms with cows registered with the co-operative societies increased from 82.3 % to 97.1 % of the total number of farms, and the proportion of the number of their cows to those in the whole country increased from 80.9 % to 84.3 %, and this progress has doubtless continued during the years that have followed.

As we have seen, it is above all the small and medium sized farms that profit most by co-operative association and have been registered in largest number; and although the large farmers have also begun to join the co-operative societies in constantly increasing number, still the figures for 1909 show that they sometimes still hesitate. The following table gives an idea

of the degree to which farms of different size had joined the co-operative dairies of the country in 1909 ; and by way of comparison we show the corresponding proportion for 1903.

Area of Farms	Farms		Cows		
	Number in 1909	Proportion Affiliated to Co-operative Dairies	Number in 1909	Proportion Registered with Co-operative Dairies in 1909	Percentage Corresponding for 1903
0-0.55 ha	1,744	70.1	2,741	67.5	52.0
0.55-1 "	54,001	84.9	130,068	86.3	82.8
1-15 "	49,084	88.1	236,757	88.9	84.9
15-30 "	35,694	90.0	319,154	90.8	88.4
30-60 "	23,958	88.9	317,821	88.0	86.3
60-238 "	6,863	82.8	156,983	73.9	72.2
above 238 "	575	49.0	63,264	38.8	37.1
Total . . .	171,949	87.1	1,226,788	84.3	81.3

This table shows that the proportion of owners of livestock affiliated to the co-operative societies goes on increasing, even in the case of large farmers, and certainly since 1909 this progress has not ceased. This shows in what degree the co-operative dairies have been able to raise the peasants' butter to an equality with that of the gentlemen; and is also proof of the absolute confidence of the large farmers in the strictly democratic management characteristic of the dairies, which is the more striking and characteristic when we consider that the large majority of the farms are small, as is shown also by the table. The peasants could not show in a more effective way how capable they are of playing the part of organizers and conducting the management of societies with wisdom and enlightenment, equitably and conscientiously.

In 1909 the total milk production of the country was reckoned at 3,400,000,000 kgs.; of which 2,620,000,000 kgs. (or about 77 %) were treated by the co-operative dairies. This percentage is slightly inferior to that shown for the cows on the farms, because no account has been taken of the milk consumed on the farms themselves. In 1909 the producers received for the milk consigned by them altogether 227,000,000 crs. The gross total of the business* amounted to 250,000,000 crs. In 1913 it was estimated at 290,000,000 crs.

§ 2. INTERNAL ORGANIZATION OF THE CO-OPERATIVE DAIRIES AND THEIR CENTRAL ORGANISATIONS.

The dairies of all the country are characterised by great uniformity both as regards co-operation and administrative organization. The proportions may vary but the forms are almost identical. This uniformity has existed from the start, and it has gradually become more marked, being stimulated and encouraged by the strict co-operation that was soon established among the dairies in their several departments. The numbers of cows at the disposal of the societies varies from 200 to 2,000; but most usually from 800 to 1,200. According to the industrial census of 1906 the average quantity of whole milk received by a society was 2,100,000 kg. for an average number of about 880 cows. In recent years, large co-operative societies have often been subdivided to form smaller societies, though the latter have comparatively high working expenses, and can only with difficulty equip themselves in modern style. They are often obliged, for example, to employ ice safes instead of refrigerators. In an economic sense there is no justification for this subdivision, but the farmers want to have their milk returned to them as soon as possible, which is a quite legitimate desire, above all in the case of those who live at the greatest distances, who are subjected to the double inconvenience of having to deliver their milk earliest, and have it returned latest. At times a certain local patriotism manifests itself, and when business is good, the surplus expense is readily met. These subdivisions, however, have not been in proportion to the increase of the milk received by the societies, which is due to the increase in the number of cows and the increased production per cow.

A co-operative dairy is generally founded for a definite period of time, varying from 10 to 15 years. During this period, the farmers engage to supply all the milk they produce, except what is consumed on their farms or sold retail to their neighbours. They recognise themselves also as jointly and severally liable for the engagements of the society, on the principle, "all for each and each for all", in proportion to the number of cows they each possess.

On this basis, the funds required are generally raised by means of a loan from a bank or savings bank, so that the members need pay no contribution. Interest and sinking fund is paid out of the profits of the business. The initial capital is generally from about 30 to 40 crs. per cow.

The members can only be relieved of their joint and several liability before the expiration of the term fixed for dissolution of the society, in case of death or the sale of their holdings, or by vote of the General Meeting. At the end of the period fixed, a new society may be formed for a new period, to include all the old members or only such as desire it. For the purchase of the dairy from the former members, a new loan is contracted, the

amount being distributed among the producers in proportion to the quantity of milk supplied by each, in the whole period of working. The period for which the members engage varies generally between 10 and 15 years; in recent times, however, there has been observable a strong disposition to reduce this period to 5 years.

The supreme authority in the business of the society is the General Meeting, which is, as a rule, only called once in six months. The rules often provide that the decisions of the General Meeting cannot be impugned in a court of law, a provision which has the force of law. The members have almost always the same voting rights, irrespective of the number of cows they possess. For this reason, the large landholders long hesitated before entering the co-operative societies; but now they feel no difficulty about entering, and independent dairies on gentlemen's estates are becoming, as we have said, rarer and rarer.

The Board of Management of the Society deals with the daily business, the bookkeeping, the cash, the administrative supervision etc.; it is generally appointed for two years, and is often rather numerous, for it is usual for each member of the Board to make the monthly payments to the members of his district; so it is natural that each clearly defined geographical district should desire to have a representative on the Board. The Board appoints the Technical Manager (*Mejeristen*) who is entrusted with the direction of the daily work of the dairy, and the keeping of the accounts. Formerly, all the rest of the staff were also as a rule appointed by the Board; but this was found inadvisable. The technical manager now receives a fixed amount with which he must provide himself with the assistance he requires; this system has proved the best possible.

The dairy undertakes the collection of the milk and its return to the producers. In this way the producers who live further away do not pay more for the carriage of the milk than those near at hand, which contributes greatly to the maintenance of good relations between the various members, and is assuredly also a reasonable system, for the situation of the dairy is often accidentally determined, and any subdivision of the society would in any case be contrary to the interest of those who live nearest.

As a rule, the dairy only supplies and keeps in good order vehicles suited for the transport of milk; tenders are invited for the contract for transport itself, for periods of one year or six months. In this way, the dairy has not to keep horses.

The vehicles generally make one journey a day, and only in certain localities two, keeping to a fixed itinerary, and the producers are bound to bring their milk early to the road, so that they may go on again without delay. Producers who do not live on the road followed by the vehicle generally receive a certain sum in compensation for every 1,000 kg. of milk they supply. However, the route is so arranged as to serve the large producers directly. The vehicles must reach the dairy in a fixed order, at hours established, so that the milk may be weighed and separated as rapidly as possible, without interruption and useless delay, and each,

as the work proceeds, must be ready to start again to return the separated milk and whey to the producers. When the profits are divided, it is a fundamental rule that the division shall be in proportion to the amount of milk supplied. At first this division was made after a very imperfect fashion, and in some places this continued for a long time; it was based only on weight and not on the amount of butter fat in the milk. This was a matter of specially great importance, above all for the numerous small producers owning few cows, in whose case the amount of butter fat in their milk might vary within very wide limits.

This was one of the first problems science had to deal with, and it was promptly solved, by the construction of an apparatus which allowed of the amount of cream in a large number of samples of milk being determined by means of a single observation. Most of the dairies then began to calculate the value of the whole milk supplied in accordance with the amount of cream or butter, on the basis of the current price of butter. This method, very good and reasonable in itself, which possesses the advantage of preventing any adulteration, has also a great merit which will only be greater in the future, as it draws attention to the advisability of only rearing cows which give rich milk, and of exercising quite special care in the selection of good bulls. This method has also inspired the constitution of "control" societies, which, in their turn, have favoured the change to the new system of distribution of profits. The latter system is in use in almost all the co-operative dairies, whilst most of the old dairies worked in common have remained faithful to the old system.

The calculation of the value of the milk is based on the regular control of the milk of the various producers, generally tested twice a week; however, the distribution is effected, according to various methods, more or less accurate and complete. The simplest process, which has fairly recently been introduced and has become widespread on account of its simplicity, is to multiply the weight in pounds of the milk by the percentage of cream ascertained, and distribute the price of the butter in direct proportion to the number of what it has been agreed to call "cream units" thus arrived at.

In this way, it is only necessary to divide the amount the whole milk has yielded in butter produced and milk sold; payment is made once a month. As regards the separated milk and whey the dairy does not sell, and does not use for cheesemaking, but the producers are bound to take back, the value is ascertained quite differently. The milk is returned in proportion (up to a certain point) to the whole milk supplied, at a given price, which is very low, and which, while in some degree corresponding with its value as food for cattle, does not take special account of that, and is calculated so as amply to cover the working expenses of the dairy. Generally, the price is calculated so as to leave a large margin of profit. This is distributed annually or half yearly according to the same rules as govern the sale of the butter.

The separated milk and whey are paid for by means of deductions from the monthly contributions. Deductions are also made for butter and cheese

bought by the producers at the dairy, as well as for expenses the dairy has been put to for the account of the producers as, for example, the tinning of the cans used for carrying the milk. In dairies which also engage in the co-operative sale of cattle foods, a practice which may be regarded as generally diffused, there is a further provision that the department for co-operative sale of cattle foods may, if the producers of the society are debtors up to a certain amount for the purchase of cattle foods, keep back the whole or part of the price of the milk or the surplus profit.

The rules of the dairy provide that its members shall only supply pure and natural milk and never supply milk from sick cows or from those that have too lately calved. Often also the employment of certain kinds of cattle foods, known to have a deleterious effect on the quality of the milk, is forbidden. In several districts the milk supplied by each farmer is analysed at regular dates, for example, once a week or once a fortnight. The "Societies for the estimation of the value of milk" (*Milchbeurteilungsvereinen*) have shown great activity in extending this system. One or more local or itinerant experts are charged to give their estimate. The result is expressed, by means of a series of points, in certificates of three different classes. This result is communicated to the producers in the monthly statement of their accounts. This urges them to correct possible defects in their production, and to furnish milk of the best possible quality; and the effect obtained is the more certain as it is almost impossible to prevent the result of the judgment becoming known to the neighbours. It has been found that, where this system has been adopted, the quality of the milk has considerably improved, and this improvement disappears at once when the system is abandoned.

This system has still difficulties to overcome; it is not easy, for example, to prevent the judgment passed on the milk, more or less formally, from having the appearance of personal criticism and giving rise to ill feeling; which in several localities has led to disagreeable consequences. It is easy for the technical manager of the dairy, in weighing the milk of the various producers to discover the grosser defects, such as an insufficient supply of cans, sometimes rusty cans, dirty or malodorous milk etc. His task has recently been considerably facilitated by the fact that the milk is now poured into special recipients in order to be weighed, whilst formerly it was weighed in the cans, the weight of which had afterwards to be deducted. When gross faults of the above kind have been discovered, the suppliers are at once informed, and invited to amend them without delay. Often, a communication of this character is made by letter, or by a note pasted on the can, when the separated milk is returned. Of course milk not suitable for the purpose is in no case accepted for the making of butter; in the most serious cases, or when remonstrances have been ineffectual, the Board of Management has the right to suspend the producer from membership of the society for a time or permanently to expel him; but generally a warning suffices to prevent the repetition of the offence for a long time, even in the case of the least conscientious producers.

Attempt has been made to introduce a principle by means of which a

certain price may be assigned to milk of a certain quality, but it has not been possible to get it accepted. It is extremely difficult and often impossible to establish a fixed and permanent relation between the quality of the milk and its value for the production of butter. On the other hand, in certain localities a whole system of fines has been introduced, by means of which producers supplying specially bad milk are paid reduced prices for a certain time, or until there is a real improvement.

As security for their various interests and common work, several leagues have been formed among the co-operative dairies. The co-operative movement in Denmark has produced a large number of these leagues, as the organization is founded on the principle of the division of labour, which aims at assigning as far as possible each special and definite function to a special association. In accordance with this principle, no single central organization is to be found in the field of dairy industry, but, in its place, we see a whole series of organizations enjoying equal rights, closely associated, but at the same time completely independent of one another in their work.

The work effected by means of this close collaboration may be considered in its principal aspects more attentively on a future occasion. We shall now only summarise in a few words the principal duties of these Central Societies, showing their numbers and their importance and consider more in detail a special institution, to which we shall not have an opportunity of returning.

(1) As regards the co-operative sale of dairy produce, there is a series of societies for the export of butter, formed among federated dairies engaging to sell the butter they wish to export through the medium of the society in question, and to accept joint and several liability in regard to the production of butter. In general, non-co-operative dairies may also be members of these societies. The first such society was founded in 1888. Now there are six, in various districts of the country; they associate 275 dairies, and the total annual business done by them is about 43,000,000 crs.

(2) As regards the co-operative purchase of dairy machinery and other industrial apparatus, 175 dairies united in 1901 to form the "Co-operative Society for Purchase and Manufacture of Machinery for Danish Dairies." This society has 20 sections, and 851 dairies are now affiliated to it. The total annual business done by it is about 2,200,000 crs., half in connection with the manufacture of machines and half in connection with co-operative purchase. The members of the society are in no way obliged to make purchases. The society was first of all only a co-operative society for the purchase of ordinary articles of trade; but it soon began to occupy itself with the purchase of dairy machinery requiring to be specially fitted up and a workshop for the purpose, and began actively to manufacture the machines themselves. This was arranged by taking over the succession to a former private, well organized business, the former proprietor of which was appointed technical manager, which assured the society from the start of the necessary administrative and technical competence. The

society could thus be placed on a footing of equality with competitors at home and abroad, and fulfil the task it has assigned to itself, consisting not so much in manufacturing the best machines and implements as in directing the business on healthy and honourable lines, at the same time avoiding all the various costs of advertisement, travellers etc., that the competition of private undertakings necessitates.

(3) The dairy societies occupy themselves with the encouragement of the dairy industry, both from the technical and the economic point of view and especially with the protection of the interests of the industry abroad. Their activity and efficacy, on which for the moment we shall not insist, is guided by the representatives of the dairies concerned. Most of the dairy associations were founded between 1890 and 1900; today there are altogether 21, with a total of 1,128 affiliated dairies. The local societies have federated and formed three provincial associations for the three chief regions of the country, and have also become affiliated to the "General Organization of Danish Dairy Societies." This organization occupies itself with business of general interest, such as the answers to be given to questions eventually put by the legislative authorities or the Government, in regard to the laws and regulations relating to the dairy industry and represents the interests of that industry with third parties. This central organization has also other important functions relating to farming statistics and statistics of prices of butter, butter quotations, etc. as will be explained hereafter. The presidential office of these bodies is composed of the managers of the three provincial associations above mentioned, and four members appointed by the Committee of Representatives (*Repræsentantskabet*); each local dairy society appoints a representative for every 20 members, and he has a seat on the Committee. The Committee of Representatives is invested with supreme authority and elects the President of the Organization.

The Dairy Associations must not be confused with the Association of the Technical Dairy Managers (*Mejeristforeningen*), which is a league of the Technical Managers and their assistants. Its organization is similar, as it has provincial sections and a sphere of action coinciding in part with that of the dairy associations and on many occasions has collaborated with the dairy associations.

(4) Sometimes independently, sometimes in dependence on the dairy associations, the associations for the estimation of the value of milk perform the work already described. There are 14 of them, affiliating 258 dairies.

(5) As a central independent organization of several sections of the Technical Dairy Managers' Association and as a special local union of dairies, we have the committee for co-operative experiments with a view to the manufacture of cheese. This committee proposes to direct experiments in cheese making and cheese shows, the object of which is — on the basis of accurate reports, presented by the various dairies, in regard to the methods adopted in cheese making and its preservation in cellars — to decide what may be the most suitable means for improving the production,

taking especially into consideration the general judgment passed on the produce obtained. This committee has a member for each local section represented. Each member organizes the shows in his section and, for the purpose of judgment, two experts are attached to him, appointed permanently for all the sections generally.

(6) On the promulgation in 1898 of the law on accident insurance, obliging the dairies, as industrial undertakings, to pay compensation to their employees in case of accident, they formed their own accident insurance society, afterwards so enlarged as now to take in all agricultural businesses subject by the law to insurance, and even voluntary insurance societies. The dairy section of this association now includes 1,311 dairies.

Finally, the dairies are represented by the provincial unions of dairy associations on the Central Co-operative Committee of Denmark (*Andelsudvalget*), the central organ representing the Unions of Danish co-operative undertakings, the duty of which is to promote the action of the societies, and strengthen their position both at home and in their foreign relations, in harmony with the international co-operative movement.

(To be continued).

BRITISH INDIA.

NON-AGRICULTURAL CO-OPERATIVE SOCIETIES IN INDIA.

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- STATEMENT SHOWING PROGRESS OF THE CO-OPERATIVE MOVEMENT IN INDIA DURING THE YEARS 1911-12, 1912-13, 1913-14.
- THE CO-OPERATIVE CREDIT SOCIETIES ACT, 1904 (X of 1904).
- THE CO-OPERATIVE SOCIETIES ACT, 1912 (II of 1912).

At various times we have reviewed in this *Bulletin* the progress of agricultural co-operation in British India, but so far we have referred only in the most incidental manner to the development of non-agricultural co-operative societies. The latter, however, although almost insignificant in number by comparison with agricultural societies, have been making progress, and in 1913 and 1914 increased very rapidly.

On June 30, 1912, the number of non-agricultural societies was 495, the total membership was 67,097, and the total working capital £357,286. On the corresponding day in 1914 the number had increased to 806, the membership to 109,694, and the total capital to £554,978. It will be seen, therefore, that this part of the Indian co-operative movement has already reached respectable proportions and it will be worth while to examine it a little more attentively.

§ I. PROVISION FOR THE FORMATION OF NON-AGRICULTURAL CO-OPERATIVE SOCIETIES.

The advisability of providing for the formation of urban or non-agricultural credit societies was recognised even before any steps had been taken to launch the co-operative movement in India. The report of the

Committee on the Establishment of Co-operative Credit in India — a committee which sat in 1901 and which drafted a bill as the result of its deliberations—contained the following paragraph:—“Further, we consider that the efforts of Government should not be limited to encouraging the establishment of purely agricultural societies. The Italian co-operative banks were first started in towns, and, taking into consideration the results achieved by them, we consider that endeavours should be made to encourage the formation of urban societies working on co-operative lines. The object which these societies would serve would be twofold. In the first place, we consider that they would meet an existing want in providing a medium somewhat more profitable than the Post Office Savings Bank for the accumulation of savings by clerks and artisans, and would thus serve as a useful and much needed incentive to thrift... Further, one of the main functions of such banks in Italy is the loaning of capital to rural banks, and we see no reason why urban societies in India should not similarly provide funds for village societies.”

It will be noted that the Committee had in view only co-operative credit societies, and that it contemplated a system in which village societies would act as the agents of urban societies, thus meeting one of the great difficulties which had hitherto hampered the development of agricultural credit, that namely of acquiring local knowledge, and at the same time furnishing a secure and profitable investment for the funds of the urban societies. The Indian co-operative credit system, it may be admitted, is not being evolved precisely in the manner contemplated, and as a matter of fact some of the most interesting non-agricultural societies are small in number of members and poor in resources, and have no connection with agricultural credit societies, having been formed among weavers, brass and leather-workers or other poor craftsmen for the simple purpose of helping their members to escape from the burden of debt and free themselves to some extent from the extortions of dealers and middlemen. Still there are urban banks which lend largely to agricultural societies in their own districts, so that non-agricultural credit is by no means entirely divorced from agriculture.

The *Co-operative Credit Societies Act* of 1904, passed largely upon the recommendation of the Committee already referred to, recognised two classes of societies, agricultural and urban, the distinction being that in the former four-fifths of the members were to be agriculturists, and that in the latter, at least four-fifths were to be non-agriculturists. In agricultural societies, liability (save with the special sanction of the Local Government) was to be unlimited, while in urban societies it might be either unlimited or limited. The act of 1904 remained in force up to June 30, 1912, on which date (as we have already noted) there were 495 urban societies in operation. The act was then replaced by the *Co-operative Societies Act* of 1912 in which the classification into agricultural and urban societies was dropped, the provisions of the act being framed with reference to the much more important distinction between limited and unlimited societies. The classification adopted in the earlier act had been objected to by many critics, and experi-

rience had proved that the objections were well founded. Urban societies had enjoyed the privilege of working with limited liability, although all the arguments which made unlimited liability advisable in the case of rural societies applied with equal force to many urban societies, — for example, to the small societies of weavers working together in one place whether in the town or in the country. As the Hon. Mr. Carlyle, in introducing the amending bill in Council, said: — “The true distinction appears to be between limited and unlimited societies. In many cases urban societies should be unlimited. In some cases there is no reason why rural societies should not be formed of limited liability.”

The act of 1912, like the earlier act, contained the provision that agricultural credit societies should, ordinarily, be based on unlimited liability. It added the provision that, ordinarily, the liability of a society of which a member is a registered society should be limited, — an important provision which contemplated the formation of unions with other societies as members. The new act, too, was not limited in its application to co-operative credit societies but provided for the recognition of any society which had as its object “the promotion of the economic interest of its members in accordance with co-operative principles,” thus clearing the way for the development of societies for purchase and sale, production, production and sale, insurance, etc.

From what has been said above it is clear that the British Government in India intended from the start of the co-operative movement that urban or industrial co-operation should develop side by side with agricultural co-operation, or at least that every opportunity should be provided for its so developing. Nevertheless it must be remembered that the real motive which has inspired the co-operative movement has been the desire to benefit agriculture. “The problem of agricultural credit has been looked on as more urgent than that of industrial credit, and the efforts of Government have been mainly devoted to the relief of the small agriculturist.” (1)

It is perhaps for this reason that urban or non-agricultural co-operative societies show a somewhat large proportion of failures. The attention of the Registrars and of voluntary workers has been directed somewhat too exclusively towards agricultural co-operation, with the result that urban societies have been formed in a somewhat haphazard manner, and at the present time the comparatively small group of urban societies presents little or none of that homogeneity which distinguishes the large group of agricultural societies. It would be possible to give a fairly accurate idea of agricultural co-operation in India by describing a single village society. In the case of non-agricultural societies the matter is not so simple, and it becomes necessary to give some account of the different classes and kinds of societies of which the group is composed.

(1) *Resolution dealing with the Progress of the Co-operative Movement*. Simla, 1914.

§ 2. DIFFERENT CLASSES AND KINDS OF NON-AGRICULTURAL SOCIETIES.

It is important to notice in the first place the relatively high proportion of societies other than credit societies in the non-agricultural group. In the case of agricultural societies the proportion is only 1 per cent. (174 societies out of 14,538), while among the non-agricultural societies it is exactly 20 per cent. (162 societies out of 806). The figures given are for 1914. The majority of the urban (1) non-credit societies (139 out of 162) are engaged in co-operative purchase or purchase and sale, whereas, with but few exceptions, non-credit agricultural societies have been formed for production and sale, or for insurance.

Under the head of non-agricultural credit societies are included credit societies for artisans and traders in towns, industrial societies for weavers and other workers in particular industries, and societies for salary earners. The societies for artisans and traders are in some cases strongly established, well-managed institutions, closely resembling the People's Banks with which we are familiar in Europe; in other cases they are associations somewhat loosely organised on the basis of unlimited liability, composed for the most part of petty traders who neglect the work of management, and having often a very precarious existence. We shall deal presently with the difficulties which have been encountered in the constitution and management of different types of urban societies.

Of the industrial societies, formed for the purpose of financing particular industries, undoubtedly the most important are the weavers' societies. Weavers form an important industrial group in practically every part of India, and with the development of the factory system the economic situation of the group threatens to become miserable in the extreme. Co-operative credit societies alone can not save the weavers from the fate which long ago overtook the English hand-weavers, but they can relieve the workers from immediate pressure, and especially from the pressure of debt to private money-lenders. The formation of these credit societies, too, makes it possible for Government and private persons interested in weaving to establish schools of instruction, introduce an improved type of loom and superior dyes and, in general, carry out a constructive policy designed to raise the handicraft above the level of the factory industry and thus free it from the competition of machinery. The authorities are keenly alive to the importance of saving skilled independent craftsmen from being forced into the ranks of the mill-hand class,—a class which, it may be mentioned, is already in a sufficiently depressed condition. Weavers' societies start by making small advances to their members for necessary trade or domestic purposes and by undertaking the collective purchase of yarn. They soon find that they are seriously hampered unless they possess sufficient funds to

⁽¹⁾ We use the term "urban" occasionally for "non-agricultural" in spite of the change in the nomenclature of the official returns. "Non-agricultural," like any term which defines by negation, is open to exception; but "non-agricultural, non credit" becomes impossible.

enable them to accept finished cloth on deposit for their members during the slack season and make sufficient advances in yarn or cash to keep the workers employed. The last step consists in opening a regular shop for the sale of members' goods to the public.

A large number of urban credit societies have been founded among workers in the most poorly paid occupations. Thus there are societies among the street-sweepers in various towns, as well as among mill-hands and common labourers. These societies are founded with objects which are largely philanthropic, and it is an essential of their success that some person of superior education and recognised influence should take an active interest in their management, and should, indeed, be entirely responsible for their welfare. They are social rather than economic institutions.

Finally, there is an important group of societies formed among clerks and other salaried employees in Government or municipal service. These are formed, for the most part, each among the employees of a single Department, but in some cases membership is open to all Government employees stationed in a particular town or district. In the same group we may include societies formed among the employees of some of the railway companies and of certain important private firms.

We have said enough to show that wide differences exist between the various types of societies included in the group of non-agricultural societies. Where such differences exist, averages and aggregates for the whole of India, are more likely to mislead than to inform, and it will serve our purpose better to give certain figures for each province separately. The figures in the table below show how greatly the societies differ in size and in financial strength from province to province.

TABLE I. — *Number and Constitution of Non-agricultural Societies 1914.*

Province	No. of Societies	Members	Working Capital
			Rs.
Madras	66	21,694	15,21,889
Bombay	125	26,525	19,65,168
Bengal	80	14,352	12,90,089
Bihar and Orissa	41	12,377	1,49,019
United Provinces	185	5,755	4,37,428
Punjab	34	3,263	8,53,653
Burma	49	3,414	6,14,193
Central Provinces	88	1,778	96,286
Assam	16	1,672	2,22,355
Mysore	109	18,209	11,16,207
Baroda	13	655	58,389
Total	806	109,694	83,24,676

Goorg and Ajmer which have no societies classed as non-agricultural are omitted from the table. It will be seen that 66 societies in Madras have a membership of 21,694 and a working capital of more than 15 lakhs of rupees, while 185 societies in the United Provinces have a membership of only 5,755 and a total capital of little more than 4 lakhs of rupees. Certain other data relating to the societies show equally wide divergences. In Madras, 49 out of 66 societies (74 per cent.) are limited societies; in the United Provinces only 17 out of 185 (9 per cent.) are limited. In Madras, Bombay and some other provinces the societies lend at little over 9 per cent., while in Bengal and the Punjab the rate of interest charged is 12 ½, and in the United Provinces and Burma it is 15 per cent.

§ 3. PROGRESS OF THE SOCIETIES TO 1914, AND PRESENT FINANCIAL POSITION.

Absolute figures as to the growth of any particular movement usually convey very little to a reader unless he happens to be familiar with a number of other data. This remark applies with considerable force to the figures we present below, but we present the figures which are available and then furnish such guidance as we can in the matter of their interpretation. So much premised, we may give in a table the chief data as to the growth of urban or non-agricultural co-operation during the ten years following the passing of the act of 1904.

TABLE II. — *Progress of Non-agricultural Societies to 1914.*

Year	No. of Societies	Working Capital	Total Membership
		£	
1905.	6	—	—
1906.	37	5,914	—
1907.	89	33,599	—
1908.	149	55,525	133,939
1909.	227	66,544	218,258
1910.	321	61,398	244,906
1911.	415	69,399	309,425
1912.	495	67,097	357,286
1913.	691	76,378	380,000
1914.	806	109,694 ^c	554,978

It will, in the first place, add something to our understanding of the information contained in the table if we know the figures relating to the other classes of societies, namely, agricultural and central. In 1914, there were 14,538 agricultural societies with a total membership of 599,822 and working capital amounting to £ 2,693,445, while there were 329 central societies with a total membership of 34,710 and an aggregate working capital of £1,935,812. Briefly, non-agricultural societies form 5 per cent. of the total number of societies, they include 14 per cent. of the total membership, and they hold 10 per cent. of the total working capital of Indian co-operative societies.

It would be misleading to attach undue importance to these proportions, since as a matter of fact the distinction between central and non-agricultural societies is quite arbitrary, societies which lend more than half their funds to other societies being classed as central, while those which lend only half or less to other societies are classed as non-agricultural. Thus, a society which is this year classed as non-agricultural may, by increasing the relative importance of its loans to other societies, pass next year into the class of central societies. It is worth noting that the figures given above relate to non-agricultural societies of all kinds and not to credit societies alone. In 1914 the group of 806 societies is made up as follows: credit 644, purchase and purchase and sale 139, production 1, production and sale 11, other forms of co-operation 11. It would be preferable if the statistics for credit and non-credit societies were presented separately but in the summarised statements published by the Government of India they are not distinguished. This is a matter of no great importance in the case of agricultural societies, only one per cent. of which are other than credit societies, but it has more weight in the case of non-agricultural societies, 20 per cent. of which are other than credit societies. It must be remembered, however, that existing societies for purchase and sale, production, etc., work almost invariably with very little capital, so that the total of their transactions for any year is comparatively small. In the *Receipts and Disbursements* and *Balance Sheet* of non-agricultural societies shown below there are some few items such as "Sale of Goods to Members" which relate to non-credit societies. The figures are for the financial year ending June 30, 1914.

TABLE III. — *Non-agricultural Societies: Receipts and Disbursements*
1913-14.

Receipts		Disbursements	
	Rs.		Rs.
Share Payments	13,95,212	Share Capital Withdrawn . .	2,46,146
Loans and Deposits :		Members' Deposits With-	
By Members	31,02,674	drawn	26,35,606
By Non-members	15,83,239	Loans Repaid to :	
By Other Societies . . .	1,01,124	Government	9,528
By Government	26,250	Central Societies	4,64,163
By Central Societies . .	7,36,078	Other Societies	56,126
Loans Repaid :		Non-members	9,17,484
By Members	56,45,269	Loans to Members :	
By Central Societies . .	40,574	On Personal Security . .	60,65,535
By Other Societies . . .	1,30,747	On Mortgage Security . .	16,59,628
Interest Received	5,80,950	Loans to Central Societies .	53,876
Sale of Goods to Members .	17,21,955	Loans to Other Societies . .	6,31,171
Other Income	19,00,514	Interest Paid	2,06,647
		Dividend and Bonus Paid .	1,11,703
		Stock Bought	17,43,652
		Establishment and Contin-	
		gencies	1,38,529
		Other Items	19,16,020
		Carried to Reserve	42,645
<i>Total Income.</i>	1,69,64,586	<i>Total Expenditure</i> . . .	1,68,98,459
<i>Opening Balance</i> . . .	4,82,823	<i>Closing Balance</i>	5,48,950
GRAND TOTAL . . .	1,74,47,409	GRAND TOTAL	1,74,47,409

TABLE IV. — *Balance Sheet of Non-agricultural Societies, June 30, 1914.*

Assets		Liabilities	
	Rs.		Rs.
Cash in Hand and at Bank	5,75,287	Loans and Deposits from Non-members.	16,03,029
Value of Investments . . .	3,30,026	Loans and Deposits from Other Societies	7,52,091
Loans due by Members . . .	64,07,830	Loans from Government . .	71,990
Loans due by Societies. . .	8,93,376	Deposits of Members	21,65,857
Interest due	1,86,755	Share Capital	31,16,905
Value of Stock in Hand . .	3,09,747	Interest and Dividend due .	1,65,196
Other Items	1,85,437	Cost of Management due . .	11,890
		Other Items	2,29,009
		Reserve Fund	3,85,795
		TOTAL . . .	85,01,762
TOTAL . . .	88,88,458	Balance (Profit) . . .	3,86,696

A glance at the above Balance Sheet will show how the working capital of the societies is made up. The two chief items are Deposits of Members and Share Capital, which together amount to Rs. 52,82,762. Loans and Deposits from Non-members, Other Societies and Government amount to Rs. 24,27,110, Reserve Fund (consisting of undistributed profits) amounts to Rs. 3,85,795, and, lastly, Other Items (unclassified) amount to Rs. 2,29,009. It will be seen, therefore, that what is sometimes distinguished as internal capital — Deposits of Members, Share Capital and Reserve Fund — forms the greater part of the working capital, being in fact 68 per cent. of the whole. It is worthy of note that Government loans are quite insignificant in amount, forming less than one per cent. of the total working capital.

§ 4. SOME DIFFICULTIES OF MANAGEMENT AND CONTROL.

Many defects have been revealed from time to time in the constitution and management of non-agricultural societies, and considerable difficulty has been encountered in their supervision and control. This may be due in part to the fact that the Registrars, devoting most of their attention to agricultural societies, have in some cases sanctioned the registration of societies formed on quite unsound lines, but it is due

in the main to the fact that non-agricultural societies are exposed to many risks which do not affect agricultural societies, or at least do not affect them to the same degree.

An agricultural society, in the first place, is generally smaller and therefore more manageable, while the members known personally to one another usually occupy small holdings of land which bind them to the village. Each member knows, within a little, the financial position of every other member, and each makes it his business to see that every loan is used by the borrower only for the purpose for which it was granted. Moreover, in village societies, liability being unlimited, the character of each applicant for membership is carefully inquired into, so that a society may be said to consist of men who by their neighbours are accounted honest and diligent. This close supervision, both over the employment of loans and over the admission of members, forming a double security, cannot as a rule be exercised in non-agricultural societies, many of which are composed of artisans, petty traders and people of the professional classes all of whom would resent any attempt at controlling their liberty of action.

Again, the management of a non-agricultural society is more likely to fall into the hands of men who will manipulate the business in their own interests, because the members are less in touch with one another and usually have, as compared with the small cultivator, many other things which engage their attention. The *raiyyat*, when he has no work to do on his small fields has time to discuss the affairs of his co-operative society, and, as the range of topics offered by a small village is a narrow one, we may assume that everything connected with the society is submitted to a good deal of criticism.

Each kind of society has to contend with particular difficulties of its own, and each is liable to show certain defects. Societies of the type of the People's Banks tend generally to drift away from co-operative principles and become capitalistic. This is a natural movement over which there is no need to grow pessimistic. A society which issues shares for an important amount, is based on limited liability, and carries on a general banking business both with its own shareholders and with the public, already resembles very closely the ordinary joint stock bank, and there is no reason why it should be bound indefinitely to continue working on so-called co-operative lines if the shareholders should ever become convinced that it would be a wise step to place the society frankly upon a capitalistic basis. However, this is a view of the situation which naturally does not commend itself to a Registrar of Co-operative Societies and, in fact, more than one Registrar in his report mentions with regret that prosperous town banks are apt to lose their co-operative character.

Clerks' societies seem to have met with only a small measure of success. The working of such societies was discussed at some length at the Sixth Conference of Registrars of Co-operative Credit Societies, held at Simla in 1912, and the evidence brought forward pointed to fairly widespread failure. The Registrar of the United Provinces said: — "We

have not been fortunate with societies for clerks in the United Provinces. They are usually on a limited liability basis and defaults are very common." In Behar and Orissa there was only one society which could be described as "very successful," out of six societies in operation. In the Punjab there was only one large society, at Simla, and it had not been successful.

One of the chief difficulties in the case of clerks' societies is the circumstance that members are often transferred to other districts, and in those cases it is very difficult to collect any loans that may be due. In the case of the Simla society, for instance, it was stated at the Conference that there were 90 loans outstanding and 70 defaulters scattered all over the country. It would be possible in the case of Government clerks for the district Collector or some other official to bring pressure to bear upon the members of credit societies who were in default, but there are grave objections to such a course. Where the superior officials take an active interest in the affairs of a clerks' society, things often go smoothly enough; but these officials are quite likely to be transferred after a time and their successors may not have the same interest in co-operation. In that case it is very probable that the management of the society will deteriorate. Clerks when they join a credit society are often heavily indebted to private money-lenders, but it is very difficult to get them to disclose their true position, and the management committee, not wishing to be considered inquisitorial, do not make sufficient enquiry when admitting members or passing upon loans,

Artisans' societies, of which the numerous weavers' societies are typical, often find it difficult to get together even the relatively small amount of capital which they require. Their members are nearly always poor men with little or no immovable property, and with only the simplest of appliance for carrying on their industry, their real capital consisting in their skill. By comparison, therefore, with the security which they have to offer, the sums which the workers require for the purchase of materials seem large, and unless a Government loan is available, lack of funds is likely to hamper the work. Again, it has been noted in some cases that there is a tendency to exclude the poorest members of the trade, that is to say the men who would benefit most by the society.

In artisans' societies the pooling of the members' credit, which is a comparatively simple step, may be accomplished without the society getting much further. The next step in development, consisting in the organisation of collective purchase and sale, is a more difficult one, as the society before taking it must be in a position to meet not only the competition of the dealers, but also the seasonal fluctuations of the trade itself. It must be in a position to keep its members working during the slack season by making advances to them, to be repaid in the busy season. Then, too, the purchase of suitable materials calls for some expert knowledge and considerable business ability, and outside the ranks of the ordinary dealers it is by no means easy to find men who possess both. It is indispensable that collective purchase and sale, if it be undertaken, should be well done, otherwise the society will simply drift into difficulties and finally dissolve,

leaving its own members discouraged and the co-operative movement discredited. It is precisely here that our Departments of Government can lend assistance by making the services of their experts easily available. Assuming that it is desirable to save native industries and handicrafts from extinction (and upon this point there is general agreement) it must be recognised that they cannot be saved merely by forming credit societies among the workers, and much less by doles of money from Government. The credit societies form, as it were, a foundation, a starting point, for all the efforts, official or unofficial, which are directed towards preserving the native crafts. Credit societies may with advantage be assisted in certain circumstances by advances of capital from Government, but such advances need only be temporary. If Government will make it its care to promote and direct an industry such as weaving upon its technical side, the credit societies will soon be able to attract what capital they need from co-operative or other banks, and Government loans will no longer be needed, But no private individual or association can undertake the broad schemes of instruction which alone will in time raise the native handicrafts above the level of machine competition.

GREAT BRITAIN AND IRELAND.

INDUSTRIAL CO-OPERATION IN 1914.

From the September issue of the *Board of Trade Labour Gazette*, published by the Labour Department of the Board of Trade, we reproduce the following particulars relating to industrial co-operative societies in the United Kingdom. They are compiled from returns made direct to the Department, supplemented by information supplied by the Co-operative Union and by the Chief Registrar of Friendly Societies.

At the end of 1914 there were at work in the United Kingdom 1,524 industrial co-operative distributive and productive societies, with an aggregate membership of 3,096,314, a total share, loan, and reserve capital of £64,803,071, a total trade (distributive and productive) of £164,587,520 (1), and a total profit before deduction of interest on share capital, of £15,140,960. This is an increase over 1913 of 3 societies, of 176,966 in membership, £3,977,286 in capital, £10,874,550 in trade, and £933,406 in profit.

The total number of persons directly employed by the societies was 144,974, (1) and the total amount of wages paid during the year £8,843,424 (1).

While some of the societies are engaged only in distribution, and some only in production, others are engaged in both distributive and productive operations. In the following statistics, however, distribution and production are dealt with separately.

§ 1. CO-OPERATIVE DISTRIBUTION.

At the end of 1914, 1,385 retail and 2 wholesale industrial societies were engaged in distribution. These societies had an aggregate membership

(1) The figures are exclusive of the number and wages of persons employed in agriculture by Industrial Distributive Societies, and of the sales and transfers of agricultural produce of the societies.

of 3,055,828 a total share, loan, and reserve capital of £58,305,412 (1), sales amounting to £132,316,095, and a profit on distribution before deducting interest on share capital of £14,542,623 (1) while the total number of persons directly employed in distribution by these societies was 82,841 and the total wages paid £5,103,951.

In the following Table are shown separately for the retail and for the wholesale industrial societies the sales for 1914 together with those for the preceding year and (in order to show the growth in 10 years) for 1904.

TABLE I. — *Sales of Retail and Wholesale Industrial Societies.*

	1914	1913	1904
Retail Societies: Number	1,385	1,382	1,454
" " Sales	£87,979,898	£83,607,043	£59,311,885
Wholesale Societies: Sales of the English Society	£34,910,813	£31,371,976	£19,809,196
" " Sales of the Scottish Society	£9,425,384	£8,964,034	£6,801,272

Of the total profit of £14,543,623 (1), a sum of £13,501,784, was made by the retail societies and £1,041,839 by the wholesale societies. In the case of the retail societies the greater part of the profit was distributed to the members as a dividend on purchases, at an average rate of 2s. 4 ½ d. in the £1 in England and Wales, 3s. 2d. in Scotland, and 1s. 2 ½ d. in Ireland, the average for the United Kingdom being 2s. 5 ¾ d. Non-members usually receive dividends at one-half these rates.

The English and the Scottish wholesale societies paid to members a dividend on purchases of 5d. and 8 ½ d. in the £1 respectively.

In addition to the above societies there were also at work in 1914 two societies, one a co-operative cab society in England with 22 members, a capital of £829, a trade of £5,511, and profit of £478; and the other a co-operative motor society in Ireland with a membership of 17, a capital of £938, trade amounting to £970, and a profit of £50.

Profit Sharing with Employees. — Of the total 1,385 retail societies, 173 employing 14,761 persons, and paying wages amounting to £870,039 in their distributive departments, allotted a total of £39,450 out of the

(1) The figures include the capital used in the productive departments of retail societies and the profit upon the productions of these societies, the amounts not being available separately. The capital used in the productive departments of the wholesale societies, £4,037,445, and the profit, £316,582, are not included.

profits to their employees as a bonus on wages, this being equal to 4.5 per cent. upon the wages paid.

The Scottish Wholesale Society, with 2,743 distributive employees, and paying wages amounting to £177,501, allotted £6,300 as a bonus on wages, this being equal to 3.5 per cent.

§ 2. COOPERATIVE PRODUCTION.

In 1914 there were 1,137 industrial co-operative societies of various types engaged in production, consisting of 1,000 retail and two wholesale distributive societies having productive departments, and of 135 associations for production only, consisting of 5 cornmilling societies, 38 bread-making and other consumers' societies, and 92 associations of workers. The total number of persons employed in production by these societies was 62,095, the amount of wages paid during the year being £3,738,570, and the value of productions £32,264,944. Of the 62,095 persons employed in production, 53.4 per cent. were men, 29.3 per cent. women, and 17.3 per cent. were young persons under 18 years of age.

In the following Table the sales of each group of societies, together with the totals for all the societies, are shown for each of the years 1914, 1913 and 1904:

TABLE II. — *Sales and Transfers of Productions.*

	1914	1913	1904
	£	£	£
Associations of Consumers:			
Productive Departments } Retail . . .	15,551,185	14,550,246	5,958,099
of Distributive Societies } Wholesale. .	12,608,101	11,211,882	5,515,611
Productive Societies: Corn-milling. . . .	1,035,044	1,003,579	1,345,207
" " Baking and Other			
Consumers' Societies.	1,291,950	1,270,579	674,461
Associations of Workers	1,778,664	1,732,337	1,109,318
Grand Total of all Societies	32,264,944	29,768,623	14,602,246

The total value of productions has increased in ten years by nearly 121 per cent., the greatest increase (161 per cent.) being shown by the productive departments of the retail societies. The productive departments

of the wholesale societies show an increase of 128.6 per cent., the baking and other consumers' societies an increase of 91.6 per cent., and the associations of workers 60.3 per cent. Cornmilling societies alone show a decrease (23.1 per cent.) this being largely due to the fact that in 1906 two of the mills at work in 1904 were absorbed by the English Wholesale Society.

The following Table analyses by groups of industries the number of persons employed, the amount of wages paid, and the amount of sales and transfers of productions in 1914.

TABLE III. — *Co-operative Production: Persons Employed, Wages Paid, Sales and Transfers of Productions in 1914.*

Groups of Industries	Associations of Consumers			Associations of Workers		
	No. of Employees	Wages paid during 1914	Sales and Transfers of Productions	No. of Employees	Wages paid during 1914	Sales and Transfers of Productions
		£	£		£	£
Food and Tobacco . .	15,530	1,108,001	23,055,040	169	12,692	96,452
Clothing	24,165	1,256,624	3,625,553	4,191	209,882	888,150
Soap, Candles and Starch	1,485	83,866	1,194,668	—	—	—
Textiles	2,176	102,072	581,081	1,848	97,347	488,609
Building, Quarrying and Woodworking .	5,414	473,000	1,204,097	315	23,964	54,836
Printing	2,134	125,651	375,242	1,071	74,125	189,622
Metal, Engineering and Shipbuilding . . .	717	48,339	194,251	446	20,906	46,075
Other Industries . . .	2,302	96,150	256,348	132	5,861	14,920
Totals 1914 . .	53,923	3,293,703	30,486,280	8,172	444,867	1,778,664
Totals 1913 . .	51,304	3,074,924	28,036,286	8,205	442,361	1,732,337

A total profit of £596,809 was made upon industrial production by societies other than retail societies, the profits of the productive departments of the latter being merged in their general profit, and therefore not separately ascertainable.

Of this total £316,582 was made by the wholesale societies, £34,170 by the cornmilling societies, £144,500 by breadmaking and other consumers' societies and £101,557 by the associations of workers.

Profit sharing with Employees. — Of the 1,137 societies engaged in industrial production, 141, employing 17,343 persons in production, with

wages amounting to £997,275 allotted a sum of £49,322 to these employees as a bonus on wages, this being equal to about 5 per cent. Of the total amount, £9,882 was allotted by retail distributive societies, £12,205 by the Scottish Wholesale Society (which has since abolished its system of profit-sharing), £9,088 by five consumers' productive societies, and £18,147 by 37 associations of workers.

Associations of Workers : Share of Employees in the Membership, Capital and Management. — Seventy-eight of the associations of workers for production, with sales amounting to £1,717,869, or 96.6 per cent. of the total sales of the 92 associations at work in 1914, made returns showing the extent to which their employees and others shared in the membership, capital and management of the associations.

The returns show that the total membership of the 78 associations was 22,112 of whom 4,679, or 21.2 per cent. consisted of employees, £13,536 or 61.2 per cent. of other individuals, and 3,897, or 17.6 per cent., of other societies. Of 7,665 persons employed by the associations 4,679, or 61 per cent., were members of the associations employing them.

Of the £744,963 share and loan capital, £109,381, or 14.7 per cent., belonged to employees; £264,548, or 35 ½ per cent., to other individuals, and £310,680, or 41.7 per cent., to other societies. The remaining £60,354, or 8.1 per cent., consisted of loans from non-members, including bank overdrafts.

The total number of directors or committeemen of the associations was 708, of whom 272, or 38.4 per cent., were employees of the associations; 288, or 40.7 per cent., were other individual members; and 148, or 20.9 per cent., were representatives of other (shareholding) societies.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL CO-OPERATION AND ASSOCIATION.

CANADA.

EGG SELLING ASSOCIATIONS IN PRINCE EDWARD ISLAND. — The first local association or circle for the production and sale of eggs was formed at Brooklyn in March, 1913. The previous year an investigation into the prospects of the egg and poultry industry in the Province had been carried out by Mr. W. A. Brown, Chief of the Poultry Division, Department of Agriculture, Ottawa, and as a result of this investigator's report the Department appointed an expert in poultry breeding to reside in Prince Edward Island and give instruction in the methods of producing and marketing eggs and poultry. The resident expert, following modern approved methods, soon began the work of organising local co-operative associations, thirteen of which had been established by the end of 1913. The success of the egg "circles," as they are called in the Province, has been most encouraging. During 1913 the sales of the thirteen circles amounted to \$14,190, and during 1914 the number of circles increased to sixty-two and the total sales for the whole of 1914 and the first two months of 1915 amounted to \$230,000. It soon became evident that a central selling and controlling agency was needed, and early in 1914, the "Prince Edward Island Co-operative Egg and Poultry Association" was established by a special act of the Provincial Legislature. The objects of the Association are declared to be, (a) the encouragement of the production and marketing of eggs and poultry, and all matters connected therewith, (b) the supervision and encouragement of such commercial enterprises as may be deemed, by the Association, likely to facilitate the more profitable production and disposal of the produce of the circles, (c) the encouragement of the purchase, breeding and distribution of improved strains of highly productive stock. The Association has already opened egg "candling" and grading stations at Charlottetown, Summerside, Montague, Kensington and York. These stations eliminate unnecessary handling and waste and ensure that each producer is paid for his produce on the basis of quality as well as quantity. Buyers are attracted to the Province by the fact that they can secure large and regular supplies of eggs of uniform quality and it is confidently expected that a sound and profitable industry will soon be built up.

SPAIN.

CREDIT FOR AGRICULTURAL SYNDICATES. — In Spain the question of credit for co-operative unions is now one of the most important in the agricultural social sphere, on account of the development assumed by these associations. As there is as yet no general organization of rural credit and the *Pósitos* (1) are still in course of transformation, the co-operative associations have not now any source available whence to obtain the credit their members require, except the private or official banking houses. In this position, especially as the above houses (above all the private ones) have considerably reduced their business on account of the abnormal situation created by events of international character, the credit syndicates have experienced serious difficulties in discounting their bills or opening new current accounts, so that the needs of their members in respect to working capital have naturally increased instead of diminishing.

We have already had an opportunity of explaining to our readers (2) that in Spain the official establishments bound by their rules to give credit to the co-operative societies are the Mortgage Bank and the Bank of Spain. We also at the same time showed that the first of these establishments, although quite specially founded to assist agriculture, limits its action almost entirely to urban districts, and that the second has not yet lent the agricultural social institutions all the support it should as a State Bank.

On these grounds, the Spanish Government, being in addition alarmed at the serious difficulties encountered by agriculture at the present moment, has lately issued a Royal Order to the Bank of Spain, urging it:

(1) without delay to enter on its credit lists, after first examining their rules and all precedents enabling it to proceed to their proper classification, all syndicates benefiting as such under the law of January 28th., 1906 (3);

(2) to communicate to the Department of Finance the rules it shall lay down for the grant of credit to agricultural syndicates and the benefits it shall grant those syndicates that act as intermediaries in this business, in conformity with article 78 of its regulations, as coming under the 3rd. head (4), as well as the number of syndicates classified, for the purpose indicated, in each province and the amount of credit it is ready to grant them.

(1) See article, "*The Work of the Agricultural Credit Institutes in Spain*", in the number of this Bulletin for June, 1914.

(2) See article, "*Co-operation in Spanish Agriculture*", in the numbers of this Bulletin for March and May, 1915.

(3) See above article.

(4) Article 78 of the Regulations of the Bank lays it down that: "with the consent of the Board of Management, the Bank may grant a commission to syndicates, unions or associations of commercial, industrial or agricultural character that guarantee payment of the bills their members get discounted."

The Bank of Spain immediately replied to this Royal Order, in an Official Note, in which it is stated that the Bank will in every way endeavour to meet the desires of the Government and of the rural population and that it desires to enter on its credit lists all legally authorized syndicates. It further invites these associations themselves to ask for credit to be opened to them, so that it may be able to examine their rules and the other preliminaries necessary for their proper classification.

The note adds that the Bank adheres to the principle expressed in the Royal Order in question, considering the syndicates as intermediaries guaranteeing the operations and in this sense will accept the bills these associations present on their members' account. Further to encourage such operations, the Bank will grant the syndicates as intermediaries 12.5 % of the profits it realises on these operations.

The Bank finally announces that it will send a circular to all its branches to facilitate transfers and simplify procedure and order them to enter on their credit lists not only the syndicates, but also their members, classifying them according to their merits and in this matter showing the greatest good will.

(Summarised from *España Económica y Financiera*, Madrid).

ITALY.

I. — THE FOUNDATION OF A NATIONAL CO-OPERATIVE LABOUR COMMITTEE.
— On August 25th. last, on the initiative of the *Lega Nazionale delle Co-operative* (National League of Co-operative Societies), a National Labour Committee was formed at Milan. This Committee, founded on mutual principles, proposes to put the labour co-operative societies in a position to participate to the greatest extent possible in undertaking and carrying out public contracts, taking the place of private contractors and thus enabling the working class to share immediately in the profits of the work. All co-operative societies for production, labour and distribution may be members of the new organization, which will obtain the funds for its work by the issue of shares of 100 frs. each to members and from the contributions of the larger banking institutes. The aim of the Committee is defined as follows in article 2 of the Rules: "To contribute as far as may be to the production and supply of articles and the execution of work that the present exceptional moment requires. The Society will furnish the supplies and execute the works itself directly by means of its own laboratories or establishments or with the help of co-operative associations or groups of labourers, local committees, institutions etc. The Society will arrange for the regular distribution of labour, so as to assist the regions most affected by the crisis and by unemployment, with the special intention of assigning

to the labourers the entire profits from the work, saving them as far as possible from the oppressions and from the speculation of the middlemen, as will be also to the interest of the public administrations." The principles guiding the distribution of eventual profits are laid down as follows in art. 27 of the Rules. "The net profits, after deduction of not less than 20 % to be placed to the reserve fund and an amount sufficient to give not less than 5 % interest on the paid up capital, will be distributed as follows: 20 % to the fund for co-operative education; 80 % to works of assistance and thrift for the benefit of the labour organizations."

(Summarised from *Cooperazione Italiana*, organ of the National League of Co-operative Societies. Milan, no. 1,159, October 1st., 1915).

2. — AGRICULTURAL ASSOCIATIONS IN ITALY. — From a publication of the General Management of Agriculture (1), it appears that in Italy there were on the 1st. of January, 1914, altogether 1,886 agricultural associations, distributed as follows: Piedmont, 337, Venetia, 282, Emilia, 233, Lombardy 229, Sicily, 176, Apulia, 113, Umbria, and Latium, 107, Tuscany, 90, Campania, 87, Liguria, 70, Marche, 56, Abruzzi and Molise, 38, Basilicata and Calabria, 36, Sardinia, 32.

These associations were divided as follows, according to their character: agricultural consorzi and syndicates 428, dairies 232, various co-operative purchase societies 188, antiphylloxera consortiums 165, agricultural *comizi* 152, viticultural and wine making societies 142, agricultural unions 131, mutual livestock insurance societies 94, agricultural societies of indefinite character 77, agricultural clubs 69, societies for production and labour 40, mixed agricultural societies 34, horticultural and kindred societies 28, national and regional associations 27, societies for collective sale of agricultural produce 14, sericultural societies 12, *de facto* agricultural associations 10, olive growing and oil making societies 9, livestock improvement associations, 9, mutual hail insurance societies 9, 9, academies and kindred bodies 8, agricultural machine societies 5, societies for the production of manure 3.

The largest class of these associations is therefore that of the agricultural consortiums, which are indeed among the most encouraging manifestations of agricultural activity in all the regions.

3. — A CO-OPERATIVE NATIONAL RABBIT IMPROVEMENT SOCIETY. — On the initiative of the *Società Agrisola Nazionale*, there has been formed in Rome a co-operative society for the "improvement of rabbits, the encouragement of the use of their meat as food, and the production of rabbit skin and rabbit

(1) See *Notizie intorno alle associazioni agrarie esistenti in Italia al 1° gennaio 1914*. Department of Agriculture, Industry and Commerce. General Management of Agriculture. Rome, 1915.

fur for industrial purposes." It has taken the form of a co-operative society limited by shares, the value of the shares being 20 frs. each. In accordance with its rules, the Society proposes to supply its members with pairs of rabbits for breeding, and hutches, as well as to equip large warrens for industrial purposes, and organize the retail sale of the meat in the principal cities. The rules likewise authorize the society to accept donations even from non-members, for the purpose of purchasing hutches and rabbits for breeding to be distributed gratis.

The society intends to work in the whole of Italy, and appoint correspondents in the chief provincial towns, to direct the movement in each district and in particular to facilitate the work of small rabbit farms.

(Summarised from a communication issued by the Society).

Part II: Insurance and Thrift

DENMARK.

THE DANISH PEASANT AND SOCIAL INSURANCE.

The twelfth session of the Permanent International Social Insurance Committee held in 1914, on the agenda for which the Committee had placed the subjects of social insurance charges and the possible extension of social insurance to independent individuals, gave Prof. H. Westergaard and Miss Black, on the one hand, and Mr. Cordt Trap, Head of the Statistical Bureau of the town of Copenhagen, on the other, an opportunity of publishing the results of social insurance in Denmark in the most careful and suggestive manner. Availing ourselves of their reports, we shall endeavour to show here what social insurance has done for the Danish peasant.

§ 1. OLD AGE PENSIONS.

The first Danish law on social insurance was that of April 9th., 1891, on old age pensions, amended by the laws of May 23rd., 1902 and March 13th., 1908. The costs in connection with these pensions are paid half by the State and half by the communes. In this case all the assistance comes from the public administrations, the party interested does not himself contribute.

Every individual who has completed sixty years has a right to a pension, if he is unable by his work to support himself or those dependent on him, and satisfies the conditions of the law, including that of not having received any public assistance in the five years preceding his application. The law therefore makes provision for indigence, but makes no distinction in respect to the social class. The assistance given must suffice in any

case for the maintenance of the person assisted and his family and for medical treatment and care in case of illness. It is left to the Municipal Council, to fix the amount of assistance and, in case of appeal, to the superior administrative authorities and in the last resort to the Ministry of the Interior. It has been said, with some reason, that the law was only a frame to be filled in by the Municipal Councils.

It is quite natural to suppose that the amount granted will depend, as is the case in practice, above all in rural communes, on the economic situation of the applicant and will be less if he has any income of his own. It was taken into consideration that there was a danger that other persons might lose all desire to give assistance, and the poor all interest in helping themselves, and a remedy, at least partial, was attempted. Thus the 1908 law decided that in determining the amount of assistance no account should be taken of any income not exceeding 100 crs. per ann., whether due to private charity, or annuities, legacies, pensions etc. In addition, the Department does not make it an absolute condition that the applicant shall be completely without means, but admits the possession by him of a certain fortune, not to exceed 1,000 crs., or a very small holding; in such cases the amount of the assistance is generally reduced.

It was attempted, but without success, to fix the amount of assistance according to the age of the person, his domicile and the cost of living, which might urge him to increase his income.

In Copenhagen, the persons assisted each year are divided into classes according to their social position. Class I includes day labourers and persons who may be grouped with them; Class II, workmen who have learned a trade and servants (not included in class I) as well as some small dealers; Class III, dealers, artisans, small manufacturers and others of independent occupations; Class IV, members of the liberal professions and persons who may be grouped with them.

Those admitted to receive assistance between 1903 and 1913 were classified as follows:

	1905-09 Number	to 1912-13 %	1903 to 1907-08
Class I.	3,535	44.9	41.6
Class II.	2,691	34.3	40.2
Class III.	1,402	17.9	16.5
Class IV.	216	2.9	1.7
	<hr/> 7,844	<hr/> 100.0	<hr/> 100.0

About $\frac{1}{5}$ th. of those receiving assistance belong to groups III and IV and not to the working classes and the percentage has increased a little.

In this connection, it is well to remark that of the persons assisted, 3 % of the men, and 8.3 % of the women had already received assistance

from the public. These high figures for Copenhagen are due to its being the capital, in the rural districts they do not rise above 0.3 % and 0.4 %; so that in the country those assisted have generally not received previous public assistance.

Old age pensions are granted on an enormous scale in Denmark, as the following figures show. The number of persons assisted increased between 1892 and 1911-12, from 30,957 to 60,192, that is to say 21 % of the men and 38 % of the women over 60 years of age are receiving assistance. The average annual grant per person assisted increased in the same period from 82.63 crs. to 210.24 crs. and the average grant is to day 273.25 crs. in Copenhagen, 255.65 crs. in the provincial towns and 168.54 crs. in country districts. Between 1892 and 1911-12, the total expenditure has increased from 2,500,000 crs. to 12,401,058 crs.

§ 2. SICKNESS INSURANCE.

The second law with which we have to deal is that on Mutual Sickness Societies of April 12th., 1892. The fundamental principle of this law is voluntary insurance in combination with the public subventions to sickness societies recognised by the State. The State subvention is granted in cash to the several societies, in the proportion of 2 crs. per member, together with $\frac{1}{8}$ th. of the amount of the contributions paid by the members.

The communes grant the societies the following favours: 1st. Reduction by at least half of the costs of treatment to members and their children under 15 years of age in the district hospital (a similar reduction is granted in the case of treatment in the Government lunatic asylums); 2nd. For members living in the country and their children under 15 years of age, free transport of doctor, or midwife or of the patient to and from hospital over a distance of 11 kms. each way. The Communes may also grant subventions in money, but this is optional.

In order to obtain these benefits the society must be recognised by the State, which entails the obligation of submitting to the conditions required by the law and to inspection.

The sickness societies must themselves provide their members and their children under 15 years of age with medical and hospital treatment, as well as grant them a daily allowance, in general not to exceed two thirds of the average wages for members and not to be less than 0.55 fr. a day. If the daily pay is less than two thirds of the wages, the members have the right to secure themselves that amount by means of a supplementary contribution.

The sickness societies recognised by the State, according to the law of 1892, are open to labourers, small land holders, artisans, small manufacturers, employees with small salaries and persons of either sex in a similar economic situation. In practice, the law is so interpreted that anyone belonging to the working class must be accepted as a member

if he has no other income than that received from his employer for his services. In the case of other persons, the management has established a maximum limit of annual income, 1,800 crs. at Copenhagen, from 1,200 to 1,400 crs. in provincial towns and 1,000 crs. in the country, with an additional amount of 100 crs. for every child under 15 years of age living with its parents.

Since the law of April 12th., 1892 came into force, the sickness societies have developed rapidly, as the following figures show :

	1893	1900	1912
Number of Societies. . .	457	1,104	1,523
Number of Members . .	116,763	302,098	749,635
Revenue	830,000	3,097,000	8,789,000
Expenditure.	962,000	2,924,000	8,422,000
Capital	605,000	2,367,000	8,291,000

At different dates, in 1896, 1905, and 1910, statistics have been published to show the distribution of the male members of the sickness societies according to profession. We give below the figures published for the first and last of these years, both as total amounts and as percentages.

TABLE I. — *Male Members of Urban Sickness Societies*

	Copenhagen				Provincial Towns			
	1896		1910		1896		1910	
	Total figures	%	Total figures	%	Total figures	%	Total figures	%
Servants, Waiters at Cafés and Hotels.	1,282	4.7	766 665	1.1 0.9	305	3.7	2,390 171	4.2 0.3
Day Labourers	7,627	27.8	17,165	24.5	3,510	42.6	18,081	32.0
Master Artisans.	251	0.9	521	0.7	52	0.6	1,054	1.9
Workmen and Industrial Apprentices	13,895	50.7	32,812	46.9	3,265	39.6	24,222	42.8
Dealers, other Persons of Independent Occupation.	1,330	4.8	1,984 2,381	2.8 3.4	745	9.0	1,137 4,994	2.0 8.8
Commercial and other Employees	3,046	11.1	2,277 10,620	3.3 15.2	371	4.5	711 3,391	1.3 6.0
Persons without Profession or Profession Unknown	206	—	816	1.2	8	—	372	0.7
Total	27,637	100.0	70,007	100.0	8,256	100.0	56,523	100.0

TABLE II. — *Male Members of Sickness Societies in Rural Districts.*

	1896		1910	
	Total Figures	%	Total Figures	%
Servants	5,847	11.5	44,305	22.7
Agricultural Labourers	9,160	17.4	24,789	12.7
"Husmænd"	15,851	31.0	53,117	27.2
Persons Assimilated to the "Husmænd" .	3,100	6.7	8,871	4.5
Small Peasants	—	—	4,590	2.3
Old Peasants	305	0.6	476	0.2
Factory Hands	1,097	2.2	1,131	0.6
Artisans	13,221	25.9	41,761	21.4
Other Professions	2,394	4.7	14,979	7.6
Without Professions or Profession Unknown .	82	—	1,508	0.8
	51,057	100.0	195,527	100.0

As we see, the town labourers furnish the largest contingent, at Copenhagen more than 70 % of all the members of the sickness societies and in the other towns 80 %.

The statistics of the legal charges for the year 1911-1912 are as follows:

Number of Members of Recognised Sickness Societies 710,861

Contributions Paid by Members	5,333,715	Crowns
State Subvention	2,281,542	»
Cost of State Inspection	28,000	»
Indirect Communal Subventions, Estimated at . .	1,000,000	»
Communal Subventions in Money	160,680	Crowns

The charges per person insured are:

For Members	7.50	Crowns
For the State	3.25	»
For the Communes	1.63	»
Or, altogether	12.38	Crowns

§ 3. ACCIDENT INSURANCE.

The first Danish law on accident insurance was that of January 7th., 1898. It is distinguished by the following fundamental principles.

(1) The employer is bound to compensate the employee, either personally or by insuring him in a society he may select.

(2) The application of the law is controlled by a Labourers' Insurance Board, consisting of an equal number of employers and employees.

(3) The compensation given is a single amount, which is a multiple of the annual wages (six times the wages in case of total permanent disablement, and four times in case of death), the annual wages not being calculated at more than 800 crs., which is less than most of the employees concerned receive.

At first the law only applied to factory hands; three other laws have extended the principle of the professional risks to fishermen, sailors and agricultural and forestry labourers. These three laws are all essentially based on the principles of the law of January 7th., 1898.

The law of May 27th., 1908 applies to employees engaged in agriculture, horticulture and forestry. It distinguishes between holdings of a value of 6,000 crs. and those of less value. In the first case, the landowner or usufructuary is bound to insure his labourers, including the members of the family of the head of the business (with the exception of his wife), when, on account of their work in the business, they may be assimilated to the other employees and when they have completed the tenth year of their age. The law applies also to overseers, if their annual wage is less than 1,500 crs.

In the case of holdings of 6,000 crs. value or under, the landowner has the right to insure in a mutual insurance society recognised by the State, which, for its part, bears half the charge. As a rule, members (including women and children) are insured against accidents occurring in the exercise of their duties, and thus this law provides for the insurance of small independent landowners. At present about 16,000 heads of businesses are members of mutual societies recognised by the State.

The following figures for 1912 show the claims paid in accordance with the laws on accident insurance, not including the daily allowance.

	Disablement	Death
Industrial Workmen	533,520	96,000
Fishermen	16,992	55,800
Sailors	39,648	47,800
Compulsorily Insured Agricultural and Forestry Labourers	401,088	64,700
Voluntarily Insured Agricultural and Forestry Labourers	56,232	7,500

In 1911 the State subvention to the Mutual Societies was 64,689 crs. and in 1912 it was 44,811 crs.

§ 4. UNEMPLOYMENT INSURANCE.

In Denmark the initiative in regard to unemployment insurance was taken by the workmen's syndicates, which formed unemployment societies, with which their members were obliged to register themselves.

The law of April 9th., 1907, amended by a new law of April 8th., 1914, is based mainly on the principles of that on sickness societies, that is to say, it provides for voluntary insurance with Government subventions, when the unemployment societies satisfy certain conditions laid down in the law, amongst which it is enjoined they must submit to Government inspection. The State subvention is compulsory and amounts to half the premiums paid by members. If a society forms a special fund for special allowances in case of unemployment, the State contributes, always with certain reservations, half the amount paid by the members for this special object. On their side, the communes may give financial assistance to unemployment insurance societies, but this is optional, and their subventions may not exceed one third of the members' contributions. If a society has formed a special fund to meet the case of special unemployment, the commune is bound to contribute an amount equal to one third of the members' contributions.

The unemployment insurance societies are formed exclusively for workmen on low wages. Under this head are included employees engaged in a certain trade or profession (for example, industrial or agricultural labourers, including the overseers, commercial employees, employees in offices etc.) The Minister of the Interior may also extend the application of the law to associations the members of which cannot be considered as workmen in the above sense.

The law does not define the expression "on low wages". However; it is agreed that a person cannot be considered as receiving low wages if he earns more than 10,000 crs. when married, or 5,000 crs. when single.

Since the coming into force of the law of April 9th., 1907, insurance against unemployment has made considerable progress. The number of persons insured increased from 70,000 in 1907-08 to 120,289 in 1912-13 and during the same period, the capital of the societies increased from 325,000 crs. to 2,382,000 crs.

During the year 1912-1913, for 55 societies now	
recognised the contributions of the policy holders	
amounted to	1,420,385
the State Subventions to	833,436
the communal subventions to	374,114
Total	2,627,935

The amount of contribution per member was 11.80 crs. and that of the charges per member 21.85 crs.

§ 5. SUBVENTIONS TO WIDOWS.

In terms of the law of May 27th., 1908, the mother of an illegitimate child may, under certain conditions, and with certain restrictions, obtain the pension for her support due from the child's father through the Commissioner of Police of the district, by way of an advance. The costs entailed are borne by the commune in which the father has his residence. Similar rules apply in the case of mothers of legitimate children, whose fathers neglect their duty of supporting them.

The application of this law often led to the injustice that widows with children were often in a worse situation than mothers of illegitimate children. A law of April 29th., 1913, to remedy this, provides that all widows satisfying the conditions laid down in the law, for example, that regarding a maximum of income or property, have a right to a subvention for each child under fourteen years of age, without any limitation of civil and political rights, such as in Denmark is incurred by the receipt of public assistance. The income of the widow must not exceed $\frac{2}{3}$ rds. of the amount, free of income tax and her property must not exceed 4,000 crs. However, the income allowed by the law is increased by 100 crs. and the property by 500 crs. for each child less than 14 years of age. The subvention amounts to 100 crs. per ann. and per child under 2 years of age, 80 crs. for each child between 2 and 12 years of age and 60 crs. per child between 12 and 14 years of age.

As this law only came into force on April 1st., 1914, it is not yet possible to make any positive statement with regard to its application.

SWITZERLAND.

AGRICULTURAL INSURANCE IN 1913.

OFFICIAL SOURCE:

RAPPORT DU BUREAU SUISSE DES ASSURANCES SUR LES ENTREPRISES PRIVÉES EN MATIÈRE D'ASSURANCES EN SUISSE EN 1913. (*Report of the Swiss Insurance Bureau on Private Insurance Businesses in Switzerland in 1913*). Published by order of the Swiss Federal Council of June 23rd., 1915, 28th. year. Berne, Francke, 1915.

The Federal Report on private insurance businesses working in Switzerland in 1913 has just been published. This report, which is the 28th. of the series, deals with life, accident, fire and other insurance societies and as far as agriculture is concerned, with livestock and hail insurance. In Switzerland hail insurance business is transacted solely by private societies, whilst for livestock insurance there are both private businesses and public cantonal institutes in which in some cantons the owners are bound by law to insure their livestock. All the private societies insuring livestock or insuring against hail have the legal form of mutual societies.

We have already published in this Bulletin, in August, 1913, a summary of the federal report for the year 1911, and, in December, 1914, a summary of that for 1912. We shall here reproduce that portion of the report for 1913 that relates to agricultural insurance. Several tables, we have already given in the above mentioned numbers of this Bulletin, will be found here completed and brought up to date with the help of the figures given in the new report.

§ I. LIVESTOCK INSURANCE.

Three mutual societies, the *Mutuelle Chevaline Suisse* of Lausanne, the *Badische Pferdeversicherungs-Anstalt a. g.* of Karlsruhe and the *Garan-tie fédérale* of Paris, and one society limited by shares, the *Perleberger Ver-sicherungs-Aktien-Gesellschaft* of Perleberg (Prussia) were insuring livestock in Switzerland in 1913. The first two only insure horses, the others also insure horned cattle and sheep.

The insurance of horses and horned cattle by large private societies continues to make slow progress in Switzerland. At the end of 1913, 17,573,550 frs. were assured, or 1,470,575 frs. more than in 1912. The premiums collected in Switzerland by the four societies amounted to 638,318 frs. or 2,346 frs. more than in 1912. An increase of nearly 12 % in the amount of losses as compared with 1912 is partly due to the increase of the amount assured, while, it is true, there is no corresponding increase in the premiums. And the bad quality of the cattle foods, hay and oats, since 1912 has continued to produce ill effects. Diseases of the organs of respiration, especially pulmonary emphysema, those of the digestive organs, and chronic lameness are still, together with tuberculosis, the weakness brought on by old age, and accidents, the most frequent causes of losses. The Baden society has come to the conclusion that many cases of colic among horses are due to too sudden a change of diet when they begin to feed on newly harvested oats.

We give here the financial results for the year 1913, for each of the societies working in Switzerland:

The *Mutuelle Chevaline Suisse* paid in claims 75 % of the assured amounts, in accordance with the premium conditions, without calling for supplementary premiums. It has done so since its foundation in 1901. At the end of 1913, it was even able to place a small balance of 1,141.25 frs. to its reserve fund (964.80 frs. in 1912). In 1913 it insured 7,644 horses for 7,505,335 frs., or 367 horses and 367,455 frs. more than the year before. Its working expenses amounted to 20.1 % of the premiums collected (in 1912 : 20.3 %). The *Bad'sche Pferdeversicherungs-Anstalt auf Gegenseitigkeit*, also, was able in 1913, as in the 14 preceding years, to do without calling for supplementary premiums. Whenever its balance sheet has shown a loss, it has been able to meet it by means of deductions from the reserve fund not exceeding the amount allowed in the rules. In 1913 it was able to place to the reserve fund the regulation amount of 39,439.16 frs. and closed its accounts with a credit balance of 14,444.30 frs. also placed to the same fund. The total amount assured in Switzerland by the Baden Society at the end of 1913 was 2,605,470 frs. The premiums collected and the claims paid in Switzerland during 1913 amounted respectively to 137,385 frs. and 127,260 frs. These three amounts differ little from those of the preceding year. The policies running for the principal division (members' insurance) showed at the end of the year an increase as compared with 1912 of 366 members and 475 horses insured for an amount of 752,569 frs. and altogether 15,251 members, 21,956 horses and 24,336,610 frs. The proportion of the working expenses remained practically the same as in 1912. The expenses were in

1909	19.5 %	} of the amount of premiums collected.
1910	19.4 %	
1911	19.8 %	
1912	19.0 %	
1913	19.4 %	

The *Perleberger Versicherung-Aktien-Gesellschaft* began in 1913 to undertake insurance of butchers' beasts in Switzerland, and paid in claims an amount in excess of that of the premiums collected. It is a society limited by shares, with fixed premiums and no supplementary contributions. Whilst in 1912, it closed its accounts with a loss it was able to meet out of its reserve fund, the year 1913 was more favourable to it; it realised a profit of 21,290 frs., allowing of the distribution of a dividend of 4% among the share holders.

The total amount assured by it at the end of 1913 was 379,000,000 frs.

The *Garantie fédérale* of Paris, as we know, divides its business in regard to premiums, claims, expenditure and reserve funds into as many independent sections as there are countries in which it works. Everywhere, however, those insuring with it must themselves undertake the risk of 20 % of the value of the animal. In case of loss, consequently, the claim cannot exceed 80 % of the value. As this is a mutual fixed premium society, and thus has no power to call on occasion for supplementary premiums, the claims actually paid vary considerably according to the amount of cash available. In 1913, the net amount of the claims paid, corresponded with the following percentages of the value of the animals lost :

	Horses	Horned Cattle	Sheep
In France	72 %	80 %	80 %
» Belgium	40.8 %	40.8 %	
» Switzerland,	52 %	54.4 %	

As we see, there are very appreciable differences in the various countries and the whole amount of 80 % assured is not very frequently paid. In Switzerland, the *Garantie fédérale* could only pay as we see, 65 % and 68 %, respectively for horses and horned cattle, of the maximum compensation of 80 % of the value of the animal.

The working expenses of every sort are, on the other hand, very high. They were altogether,

in 1909	31.9 %	} of the amount of premiums collected.
» 1910	33 %	
« 1911	29.5 %	
» 1912	42.5 %	
» 1913	33.1 %	

The *Garantie fédérale* has begun to form a reserve fund to meet current risks. For its Swiss business, this reserve fund, which was 20,000 frs. at the beginning of 1913, was increased by 4,000 frs. in the year. In addition, an amount of 11,559.60 frs. was entered under this title for the French mut-

TABLE I. — Subventions Granted for Livestock Insurance in 1913.

Cantons	Amount Assured	Head of Livestock Insured	Number of Losses	Claims		Cantonal Subventions		Federal Subventions	
				Total	Per Animal Lost	Total	Per Head of Livestock	Credit for 1914	
				Frs.	Frs.	Frs.	Frs.	Frs.	
1. Zurich	Large Livestock . .	57,237,477	105,707	4,534	962,788.50	212 —	210,024.53	2.04	222,124.27
	Small "	1,446,998	17,050	769	27,532.70	35 —	6,099.74	0.36	
2. Berne	Large Livestock . . (1)	112,160,000	224,320	5,463	847,000.91	155 —	221,320 —	1 —	225,148 —
	Small " (1)	351,000	4,140	259	6,841.59	26 —	828 —	0.20	
3. Uri		6,379,260	11,501	403	94,944.41	236 —	31,899.28	2.77	31,896.28
4. Glarus		6,403,790	12,727	407	97,159.45	208 —	20,000 —	1.57	20,000 —
5. Fribourg		38,379,610	72,420	1,876	162,025.71	80 —	57,943.20	0.80	57,943.20
6. Solothurn	Large Livestock . .	18,211,800	42,259	1,181	136,433.61	116 —	42,259 —	1 —	44,629 —
	Goats	300,360	7,900	508	10,740.57	21 —	2,370 —	0.30	
7. Bâle-Town	(1)	851,500	1,793	75	16,776.25	224 —	4,923.50	2.89	4,923.50
8. Bâle-Country	Horned Cattle . . . (1)	8,640,000	17,280	607	52,083.76	80 —	17,280 —	1 —	17,514 —
	Goats (1)	21,000	585	44	726.15	10 —	234 —	0.40	
9. Schaffhausen	Large Livestock . .	6,674,440	11,463	428	127,743.32	298 —	31,873.65	2.78	33,902.75
	Small "	359,115	3,591	184	8,140.14	41 —	2,029.10	0.57	
10. Grisons		37,149,269	72,598	2,373	694,985.39	203 —	147,507.05	2.03	147,507.65
11. Aargau	Horned Cattle . . . (1)	36,089,000	73,978	2,245	178,089.10	79 —	73,978 —	1 —	77,795.10
	Goats (1)	276,480	7,680	476	7,755.72	10 —	3,817.10	0.50	
12. Thurgau	Livestock over 1½ years of age (1)	27,876,000	55,752	2,782	348,882.98	110 —	55,752 —	1 —	61,911 —
	" under 1½ " " (1)	1,047,930	12,318	393			6,159 —	0.50	
13. Ticino		2,246,537	6,609	180	35,775.95	199 —	4,985.79	0.75	4,985.79
14. Vaud		30,495,434	63,066	1,483	318,426.09	214 —	73,935 —	1.17	73,935 —
15. Valais		8,314,027	26,489	575	87,070.35	254 —	26,489 —	1 —	26,489 —
16. Neuchâtel	(1)	5,459,000	10,918	252	42,649.30	169 —	11,457.99	1.05	11,457.99
17. Geneva		6,596,953	10,910	318	49,575.35	150 —	21,820 —	2 —	21,820 —
Total (2)	A (2)	411,111,127	832,087	25,635	4,252,410.43	105.88	1,068,064.59	1.28	1,084,042.53
	B (1)	2,755,913	49,946	2,240	61,736.87	27.56	15,377.94	0.38	
General Total (1)				413,867,040	873,033	27,875	4,314,147.30	154.77	1,084,042.53

(1) Approximate Figures. — (2) A = Large Livestock, Horned Cattle. B = Small Livestock, Goats.

ual business, and there was a thrift reserve fund for the same department, of 56,000 frs. These reserve funds to meet current risks are still far from sufficient to meet the losses in the part of the year insured for not taken account of in the year's accounts.

We should only give an incomplete idea of the present state of horned cattle insurance in Switzerland unless we mentioned the many societies undertaking these risks without being subject to the supervision of the Confederation. They are to be found in nearly all the cantons. We remind our readers also that when a canton or an association of owners of horned cattle declare insurance compulsory for a particular territory (commune, district or canton), the Confederation pays through the cantons subventions equal in amount to those they themselves grant to the insurance societies (Federal Law of December 22nd., 1893 on the Improvement of Agriculture by the Confederation). Subventions of this kind are paid by 17 cantons and demi-cantons. In the following table we give precise information in regard to the amount assured and the amount granted in subventions in these cantons, reproduced from the report of the Federal Department of Commerce, Industry and Agriculture for 1914. In the case of the cantons for which this report did not show the amount assured, approximate figures are given, based on the average of the other cantons. The average value of a head of large livestock has been fixed at 500 frs., that of a head of small livestock at 85 frs. and that of a goat at 36 frs. From this table it appears that in 1913 the policies running represented the following amounts:

(a) Large Livestock	frs.	411,127,127
(b) Small Livestock and Goats	"	2,755,913
		<hr/>
Total	frs.	413,867,040

The cantons have paid an average subsidy of 1.28 fr. per head of large livestock assured and 0.38 fr. per head of small livestock or per goat, giving an average of 1.24 fr. per animal of any kind. The Confederation, for its part, has paid the same amounts.

§ 2. HAIL, INSURANCE.

During the year 1913 two mutual societies undertook hail risks in Switzerland, the same two that is that have long been engaged in the business there, the *Société suisse d'assurance contre la grêle* at Zurich and the *Paragrêle* at Neuchâtel. Of these two, the former works in every part of

the Swiss territory undertaking all hail risks of every kind ; the second only works in the canton of Neuchâtel and only insures vineyards.

In regard to hail, 1913 was a more disastrous year than 1912 ; many storms, some of them violent, devastated different parts of Switzerland. On August 29th., especially a heavy fall of hail in nearly all the vineyard district of Neuchâtel almost completely destroyed the last hopes of a large number of vinegrowers, already severely tried by a series of bad seasons and put the local *Paragrêle* Society to severe proof. This shows once more how unreasonable and dangerous it is for a hail insurance society to limit its business to a small district and only insure a single crop. The *Société suisse d'assurance contre la grêle* reports no less than 60 days of hail, with 7,715 declarations of losses (against 44 days and 5,816 declarations in 1912).

The Annals of the Central Swiss Meteorological Establishment for 1913, report 34 days with heavy falls of hail affecting 806 communes and 281 districts, without counting local storms affecting only one or two communes at a time. We give below the dates of the heaviest falls of hail and the number of communes that suffered:

May	17th	57	communes
"	31st	85	"
July	22nd	53	"
"	27th	54	"
September	1st	93	"
"	14th	91	"

The financial results of the two societies are very different. The *Société suisse* has, in spite of all, owing to the extent of the territory in which it works and a judicious distribution of risks, realised a credit balance of 247,993 frs., 40,000 frs. of which were placed to the working capital and 207,993 frs. to the reserve fund. At the end of 1913 it had thus a reserve fund of 3,832,510 frs. with which it will be able successfully to meet losses through storms, for it represents more than 3 $\frac{1}{2}$ times the average amount of premiums collected in the last 10 years. On the other hand, the *Paragrêle* was obliged to call for a supplementary premium of 60 % of the original premium and to use half its reserve fund to cover its losses. This reserve fund, which had already suffered a serious loss in 1911 (93,000 frs.), which was, however, partly made up for in 1912 (by means of a profit of 41,000 frs.), was reduced to the amount of 66,750 frs. at the end of the 1913 season. In view of the limited field of the operations of this little society and the danger due to the situation and exposure of the Neuchâtel vineyards, the whole area of which is liable to suffer by a single hail storm, the *Paragrêle* may more than ever expect that the results of its working will be uncertain. But, since the general meeting of members in December, 1912 decided unanimously, except for one vote, with an optimism deserving of

attention, to maintain the *Paragrèle*, and the meeting of 1913 again rejected by a large majority, in spite of the new reverses, a proposal to consider the question of the dissolution of the society, we must believe that the Neuchâtel vinegrowers are satisfied with the results. Let us again remark, so as to avoid any confusion on the subject of the accounts of the society, that the credit balance of 515.45 frs. shown in its profit and loss account, was arrived at after the supplementary premiums and the deduction from the reserve fund had been placed to the revenue account.

We give below some interesting figures for 1913 and the corresponding amounts for 1912.

(a) *Société suisse*:

	1912	1913
1. Number of Policies	65,361	63,407
2. Assured Amount frs.	79,857,960	frs. 71,173,120
3. Premiums Collected . . . »	1,353,784	» 1,049,824
4. Claims Paid »	650,841	» 781,685

(b) *Paragrèle*:

1. Number of Policies	604	571
2. Assured Amount frs.	661,384	frs. 599,676
3. Premiums Collected. . . . »	39,807	» 57,611 (1)
4. Claims Paid »	3,786	» 120,368

We may observe in the case of both societies a decrease in the amount of the policies and of the capital assured. This decrease is due, above all as far as vines and fruit trees are concerned, to the destructive frosts of the spring of 1913. The claims paid amount, in the case of the *Société suisse*, to 1.1 % of the amounts assured (against 0.8 % in 1912), and in the case of the *Paragrèle* to 20.1 % of the amounts assured (against 0.6 % in 1912).

The expenditure also shows an increase in comparison with 1912. It amounted to 17.3 % of the premiums (against 14.6 % in 1912) in the case of the *Société suisse*. In that of the *Paragrèle* it could be reckoned at 11.1 % of the total premiums, but it must not be forgotten that the figure 57,611 frs. for premiums collected is made up, as we have already previously observed, of 36,023 frs. original premiums and 21,588 frs. supplementary premiums. The expenditure represents 17.8 % of the original premiums considered by themselves.

(1) Of this 21,588 frs. were supplementary premiums.

Let us remember in conclusion that the Confederation and the Cantons may come to the help of the hail insurance societies with subventions. These subsidies are granted in accordance with the provisions of the cantonal laws and the federal law of December 22nd., 1893 on Improvement of Agriculture by the Confederation. The Cantons that grant subventions are 21 in number. Only Uri, Glarus, Ticino and the Grisons grant no subsidies and thus prevent their farmers from benefiting by the federal subventions for hail insurance. All the other Cantons make themselves responsible for a proportion of the premiums and the cost of the policies (from 15 % to 40 %). The Confederation, on its side, refunds these Cantons the half of their expenditure.

We reproduce below the table given in the Report of the Work of the Federal Department of Commerce, Industry and Agriculture for 1913. This table gives precise information in regard to the assistance given in 1913 by the Confederation and the Cantons to the hail insurance societies.

TABLE II. — *Hail*

Cantons	Policies	Amount Assured
		Frs.
1. Zurich	4,910	3,988,190.00
2. Berne	13,868	19,022,700.00
3. Lucerne	5,450	11,299,450.00
4. Schwyz	874	1,409,480.00
5. Obwald	324	240,740.00
6. Nidwald	413	394,360.00
7. Zug	852	1,646,490.00
8. Fribourg	1,832	2,945,160.00
9. Solothurn	4,693	3,956,330.00
10. Bâle-City	40	100,120.00
11. Bâle-Country	2,691	1,721,330.00
12. Schaffhausen	2,474	1,982,650.00
13. Appenzell R. E.	727	929,340.00
14. Appenzell R. I.	106	203,170.00
15. St. Gall	3,193	3,577,750.00
16. Aargau	11,527	6,600,360.00
17. Thurgau	3,544	2,749,110.00
18. Vaud	3,816	5,870,310.00
19. Valais	78	46,390.00
20. Neuchâtel	1,310	1,499,325.85
21. Geneva	686	1,608,325.00
Total 1913	63,408	71,791,080.85
» 1912	65,421	80,495,106.70
» 1911	61,991	72,036,190.00
» 1910	60,597	67,984,696.00

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Figures have already been given in this Bulletin in the VIth. Table accompanying the article by Dr. G. Rocca on the *Development of Agricultural*

Insurance in 1913.

Premiums	Cantonal Expenditure			Federal Subventions
	a. Cost of policies	b. Premiums	c. Total	
	Frs.	Frs.	Frs.	
70,921.50	9,896.10	17,730.24	27,626.34	13,813.17
237,208.00	35,441.00	50,999.54	86,440.54	43,220.27
155,645.10	12,296.50	31,129.02	43,425.52	21,712.76
20,870.70	1,654.60	6,261.21	7,915.81	3,957.90
4,776.40	588.60	955.28	1,543.88	771.94
7,326.10	777.20	1,465.22	2,242.42	1,121.21
26,125.50	2,110.50	7,837.65	9,948.15	4,974.08
30,230.10	3,501.60	6,046.02	9,547.62	4,773.81
48,282.90	8,640.70	9,936.48	18,577.18	9,288.59
1,402.40	80.00	560.96	640.96	320.48
26,121.50	5,230.90	7,456.18	12,687.08	6,343.54
35,382.80	4,340.60	8,845.66	13,192.26	6,596.13
13,466.10	1,370.80	3,366.51	4,737.31	2,368.66
2,195.70	106.00	329.35	435.35	217.68
34,192.60	7,549.20	7,342.52	14,891.72	7,445.86
84,152.20	20,818.40	12,622.65	33,441.05	16,720.53
30,678.30	6,259.60	8,789.16	15,048.76	7,524.38
117,113.30	10,844.40	45,069.17	55,913.57	27,956.79
2,120.50	211.80	636.15	847.95	423.98
62,981.65	540.66	25,192.66	25,733.32	12,866.66
78,198.90	1,565.40	46,919.30	48,484.70	24,242.35
1,089,392.25	133,830.56	299,490.93	433,321.49	216,660.77
1,393,989.65	129,404.74	393,386.89	522,791.63	261,395.78
1,219,585.02	123,241.51	341,579.36	464,820.87	232,410.39
1,098,361.35	118,897.25	270,339.35	389,236.60	194,618.27

Insurance in Recent Years (Switzerland) in the 12th. number for our Vth. Year, December, 1914, showing the results obtained by the *Société Suisse d'assurance contre la grêle* from its foundation (1880) up to 1912.

We shall now give the total results for that period (1880-1912), the results obtained in 1913, and the complete figures for the period 1880-1913.

Part III : Credit

GERMANY.

MEASURES TAKEN OR PROPOSED BY THE PRUSSIAN LANDSCHAFTEN FOR THE EXTENSION OF THEIR MORTGAGE CREDIT TO PEASANT HOLDINGS. (*Continued*). (1)

by Dr. R. LEWECK,

*Premier General Syndic of the Landschaft at Koenigsberg in Prussia
(East Prussian Landschaft).*

§ 5. NEW CREDIT INSTITUTE FOR BRANDENBURG.

The New Credit Institute for Brandenburg was founded in 1869 for the holdings excluded from the benefits of the Land Credit Association for the Nobles' Estates of Kur- and Neumark. To receive credit from the latter association, a noble's estate must have a minimum value of 18,000 marks, whilst the minimum value for other estates is 60,000 mks. Whilst the older Institute grants credit for nobles' estates and large landed estates, that more recently founded was intended to assist holdings of medium size and small holdings, especially peasants' holdings.

The minimum value of the holding on which mortgage could be passed was at first a net yield of 50 thalers, as estimated for the purposes of the land tax; in 1890 the minimum was reduced to 100 marks.

For the benefit of small holdings a further reduction was made, first in 1897 to 75 marks and then in 1911 to 50 mks., with the general provision

(1) See the number of this Bulletin for August, 1915.

that 5 ha. utilised for farming would in any case justify a mortgage. In 1911, the condition, until then necessary, that the holding must suffice for the support of the owner, was set aside. Further, in fixing the limits of the mortgage, account was taken of the conditions of small holdings. As a rule, the amount of the loan granted is in proportion to the land tax assessment; however, under certain conditions it may be fixed in accordance with the rate of valuation adopted in the case of nobles' estates (*Bonitierungstaxe*); and more particularly, in the case of holdings the revenue from which for the purposes of the land tax is calculated at 1,500 marks or more, the choice is left to the landowner; and, when this revenue is less than 1,500 marks, but not less than 900 mks., the matter is decided by the Chief Management of Noble's Estates (*Haupt-Ritterschafts-Direktion*). In determining the value, the net yield calculated in the same way is taken and to it is added an amount equal to ten times the value in use of the dwelling houses (*Wohngebäudenutzungswert*). The net yield for purposes of the land tax must generally be multiplied by 35. In 1890 this co-efficient was fixed at 50 in the case of holdings the net revenue from which for purposes of the land tax was less than 900 marks, when the land tax assessment was notoriously lower than the real conditions would warrant; but at the same time it was decided not to take account of the value in use of the buildings. In 1905, this value in use of buildings was again taken into account, which was specially an advantage for small holdings. On small holdings, especially in the neighbourhood of towns, the existence of important buildings may have a really excessive influence when the amount of the mortgage on the entire holding has to be fixed; this difficulty was overcome by establishing a total value in use for the buildings. In the great Reform of the principles of valuation based on the labours of Prof. Dr. AEREBOE, in the Regulations of February 27th., 1911 and April 27th., 1914, account was taken of the size of the farm, and especially of the particular conditions of small holdings. The necessity was recognised of a valuation on the basis of the land tax, rather than on that of the *Bonitierungstaxe*, as the first method, besides giving a more general value, presents the great advantage of greater promptness and facility in the grant of the credit, and avoids too considerable expense, which is a condition indispensable for small holdings, in the case of which, as a rule, too high estimates cannot be taken into consideration. On the other hand, experience showed that the procedure formerly followed, as a rule, of fixing the taxable value by means of a single invariable multiplier could not satisfy the just requirements of small holdings. This circumstance, and the evident necessity for small landed property that the system of valuation on the basis of the land tax should be preserved, have made it advisable to revise the system further and indicated the lines to be followed in this revision. For similar reasons also the principles of estimation which form a necessary complement to the provisions respecting valuation on the basis of the land tax have also been revised.

In both cases a new rule has been established, in accordance with which the estimated value of the security, two thirds of which at most may be lent, is not fixed first, but instead the amount of the loan that may be granted

on the security of *lettres de gage* is directly established. After the land tax has been established, it is possible to calculate with sufficient precision any modifications in the value of the holding. These modifications vary with the size of the holding. Thus the increase in value after the date at which the land tax is fixed is far more considerable in the case of small holdings; and especially those less than 10 ha. in area have increased very considerably in value. Whence it follows, that if we wish to fix the value of a holding on the basis of the net revenue as calculated for the purposes of the land tax, the amount of this revenue must be multiplied by a coefficient which must be larger in proportion as the holdings considered are smaller. Consequently, the scale of co-efficients to be used in fixing the amount of the loans has been made out in proportion to the advantage enjoyed by the small holdings. Another fact by which small holdings benefit, is that the buildings are now valued at a far higher rate than formerly; and it is evident that on small farms the buildings represent a far higher proportion of the total value than on large. When the amount of the loan on *lettres de gage* has been fixed, account is taken of all the buildings serving as dwelling places and utilised for the purposes of the farm, provided their value has been estimated by a public insurance institute; and in this case the value of the buildings may be taken as one fourth of the total value of the holding. Even in the rules regulating the estimation of the value of holdings, the question of the importance of the size of the holding for the determination of the value was settled entirely in favour of small holdings. Dr. AEREBOE (1), by means of minute and careful research, has shown the differences in value of the mere soil in the case of large and small holdings, as well as the proportional value per hectare including the stock for small and large holdings, respectively, and all the superiority of small holdings, even in respect to possible yield (*Rentabilität*). It follows that the coefficients for the valuation of holdings vary in accordance with the area, and are highest for farms of not more than 15 ha. So also, the additional estimates for ponds systematically maintained, sheets of water and scientific organisation of meadows, vary with the area of the holdings and are highest for small holdings. Similar principles are followed in determining the value of the buildings for the purpose of establishing the amount of the loans to be obtained on *lettres de gage*; so that the smaller the holding, the higher will be the value of the capital invested in buildings in relation to the total value; it may be observed in this connection that the possibility contemplated in the rules for credit that the value of the buildings may be 50 % of the amount serving as basis for the grant of the loan is in itself all to the advantage of small holdings.

The rates to be paid for the establishment of the amount of the loan were fixed in accordance with the amount lent, no account being taken of the actual expenses of the Institute, so that for small loans, up to 1,500, 3,000, or 4,000 mks. etc., the rates should not exceed 10, 15 and 20 mks. respectively.

(1) Prof. Dr. AEREBOE: *Die Taxation von Landgütern und Grundstücken*. Berlin, 1912.

With the object of encouraging small landowners to have recourse to credit, the Provincial Boards of Management of the Nobles' Estates (*Provinzial-Ritterschafts-Direktionen*), administrative organisations of the Credit Institute, and in particular also the Commissioners, are exerting an important action, sometimes through the medium of the agricultural associations and the local press. These authorities are doing their utmost that the utility and the aims of the Institute may be fully understood, and for this purpose they distribute and circulate the leaflets published by the "*Hauptritterschafts-Direktion*": "General Account of the Objects of the New Brandenburg Credit Institute" and "Collection of the Provisions most directly concerning Holdings, extracted from the Rules of the New Brandenburg Credit Institute," which may be studied with advantage for information on the matter. To encourage all this work, the provincial boards of agriculture have been authorized to cease taking advances in money for the costs of estimation. To meet this expense, as well as any other involved in the business, the landowner may obtain a simple advance of 3 % of the amount of the loan to be made, to be repaid in regular instalments.

The following tables give an idea of the work of the New Brandenburg Institute, in relation to the grant of credit to farmers. They show an increase in the number of holdings mortgaged and the amounts lent (Table I), while the business of the Nobles' Estates Institute, in comparison, apart from slight fluctuations, has remained stationary; and again we find (Table III) an increase in the amount of small loans as compared with those for more than 100,000 marks. We may observe further in Table II the higher percentage of the amount of the loans, and even more of the mortgaged holdings, for the classes of an area not exceeding 20 ha. and between 20 and 50 ha., and that this percentage is continually increasing; whilst the percentage for the classes of area between 50 and 100 ha. and exceeding 100 ha. remain unvaried, except for slight fluctuations. It further deserves to be said that small holdings (of not more than 20 ha.) have more promptly applied for credit and for larger amounts from the New Brandenburg Institute, than, for example, from the East Prussian Landschaft, where very active propaganda was first needed.

TABLE I. — *New Brandenburg Credit Institute. — Holdings Mortgaged and Amount of Loans.*

Year	Number of Holdings Mortgaged			Amount of Loans		Total
	New Bran- denburg Credit Institute	Credit Institute for Nobles' Estates of Kur- and Neumark	Total	New Brandenburg Credit Institute Marks	Credit Institute for Nobles' Estates for Kur- and Neumark Marks	
1896 . . .	7,348	1,027	8,375	114,496,000	197,404,160	311,900,160
1901 . . .	9,249	988	10,237	133,764,650	192,809,340	326,573,990
1904 . . .	9,760	962	10,722	139,828,950	191,824,260	331,653,210
1907 . . .	10,071	944	11,015	141,475,350	191,171,310	332,646,660
1909 . . .	10,241	923	11,164	142,820,650	186,888,080	329,708,730
1912 . . .	10,444	877	11,231	146,202,400	180,807,920	327,010,320
1914 . . .	10,578	873	11,451	153,714,850	188,867,870	342,582,720

TABLE II. — *New Brandenburg Credit Institute*

Year	Not Exceeding 20 ha.				Between 20 and 50 ha.			
	Number of Holdings	Amount of Loans Mks.	Percentage of		Number of Holdings	Amount of Loans Mks.	Percentage of	
			Total Number of Holdings	Total Amount of Loans			Total Amount of Holdings	Total Amount of Loans
1896 . . . }								Cannot be
1901 . . . }								
1904 . . .	3,591	23,787,950	36.8	17.0	3,965	47,841,750	40.6	34.2
1907 . . .	3,707	24,976,550	36.8	17.7	4,133	49,011,850	41.5	34.6
1909 . . .	3,797	25,429,500	37.1	17.8	4,210	50,345,150	41.1	35.3
1912 . . .	3,960	26,942,700	37.9	18.4	4,283	51,954,600	41.0	35.5
1914 . . .	4,008	27,742,100	37.9	18.1	4,367	54,665,700	41.3	35.5

TABLE III. — *Classification of New Brandenburg Credit Institute Loans, according to Amount.*

Year	Not Exceeding 10,000 Mks.	Between 10,000 Mks. and 50,000 Mks.	Between 50,000 Mks. and 100,000 Mks.	Exceeding 100,000 Mks.
1907	5,752	3,990	248	81
1909	5,877	4,046	242	76
1912	6,027	4,122	222	73
1914	6,021	4,228	255	74

§ 6. NEW POMERANIAN LANDSCHAFT.

On August 9th., 1871, the Pomeranian Land Credit Association, an institute of credit for small holdings, was founded and in 1895 it received the name it still goes by : " New Pomeranian Landschaft for Small Holdings ".

The limit of value of the small holdings for which this Institute was founded is determined by the value of the holdings that may receive credit from the Pomeranian Landschaft in accordance with its rules, that

Distribution of Mortgaged Holdings According to Area.

Between 50 and 100 ha.				Exceeding 100 ha.			
Number of Holdings	Amount of Loans Mks.	Percentage of		Number of Holdings	Amount of Loans Mks.	Percentage of	
		Total Number of Holdings	Total Amount of Loans			Total Number of Holdings	Total Amount of Loans
1,729	35,718,350	17.7	25.6	475	32,480,900	4.9	23.2
1,767	36,885,850	17.6	26.1	464	30,601,100	4.6	21.6
1,790	37,318,750	17.5	26.1	444	29,727,250	4.3	20.8
1,786	87,689,300	17.1	25.8	415	29,615,800	4.0	20.3
1,789	40,086,250	16.9	26.1	414	31,220,800	3.9	20.3

ascertained

is to say the Nobles' Estates of Pomerania, and holdings in New Pomerania and Rügen, with net yield as calculated in accordance with the land tax respectively at 1,500 and 3,000 marks. The holdings which may receive credit on *lettres de gage* from the Pomeranian Land Credit Association are those the net yield from which calculated in accordance with the land tax is at least 100 marks, and, since 1895, 60 marks. By way of exception, the General Management of the Landschaft may also give credit on holdings the net yield from which is less than 60 mks.

New provisions aim at raising the valuation of the holdings and the amount of the loans, while they reduce the expense. The use of the coefficient 45 as multiplier of the net yield as based on the income tax was allowed in 1895 in the case of holdings the net yield of which is 1,000 mks. instead of 1,500 as before required; and the supplement which may be added in consequence of permanent favourable conditions, to the value of the holding, was raised to from 5 to 50 %, while before it was fixed at from 5 to 15 %. In the case of all holdings valuation on the basis of the soil (*Grundtaxe*), in accordance with which the area is valued according to the class of crops and the quality of the soil, a method which is called *Tariftaxe*, is admitted.

In fixing the supplementary value to be allowed for the two classes of valuation (that on the basis of the land tax and that on the basis of the value of the soil), according to the regulations published in 1911-12, quite special account is taken of the needs of small holdings. The maximum supplement for valuation on the basis of the land tax is 60 % and in the

other case 25 %, if the area is not more or very little more than 100 ha.; otherwise it is 10 % at most. Further, in both systems of valuation, in the case of holdings of not more than 100 ha., or very little more than 100 ha., a special supplement is allowed for buildings graduated on a scale diminishing for every 10 hectares of the area of the holding, from 50% for holdings up to 50 hectares to 25 % for those above 90 ha.

Without any valuation or any deduction of claims, the amount of the loan may be raised by the Departmental Management to 15 times the amount of the net yield as based on the land tax and 20 times the same sum, if the General Management approves.

Farms may receive credit in the same proportion even if they have no buildings or livestock and even if they are situated in urban districts. If the net yield does not exceed 1,500 marks they will not have to pay charges for the work of valuation carried out on either system. If these conditions are not satisfied, the costs will only be paid *in full* when the net yield calculated for the land tax exceeds 1,500 mks. If the amount of the net yield is between 1,000 and 1,500 mks., the maximum amount to be paid is fixed at 50 marks and if the yield is less than 1,000 mks. at 25 marks. The presentation of a certified extract from the cadastre ceased to be necessary in 1898; a simple copy is enough; however, the management reserves the right of demanding that it be certified.

To facilitate valuations and loans, it is provided that applications for valuation may be addressed not only to the departmental management, but also to confidential agents expressly appointed for each district, and, in exceptional cases, private mortgages, the rights reserved by relations and other charges on the holding, of temporary nature, may provisionally continue to appear in the cadastre before the *lettres de gage*, provided that a sum corresponding to the *lettres de gage* issued is deposited with the Landschaft until the above charges are extinguished. The work done by the New Pomeranian Landschaft for small holdings was up to 1895 quite insignificant. Since then the number of holdings mortgaged to the new Institute has exceeded that of those mortgaged to the Pomeranian Landschaft.

The amount of the *lettres de gage* issued also has increased without ceasing and this increase was above all great in the years 1896-1901 (Table IV). The small holdings of not more than 20 ha., and those between 20 and 50 ha. in area receive most loans, and the proportion goes on increasing (Table V); one third of the total amount of the loans is represented by small credits (up to 10,000 marks).

TABLE IV. — *Total Amount of Loans.*

Year	Number of Holdings of the New Pomeranian Landschaft	Number of Holdings of the Pomeranian Landschaft	Total	Amount of Loans of the New Pomeranian Landschaft Mks.	Amount of Loans of the Pomeranian Landschaft Mks.	Total
1896	252	1,512	1,764	6,295,150	228,414,125	234,709,675
1901	724	1,482	2,209	15,135,200	237,059,825	252,195,025
1904	1,081	1,470	2,551	22,740,750	245,678,025	268,418,775
1907	1,292	1,468	2,760	27,313,900	257,871,175	285,185,075
1909	1,295	1,423	2,718	27,666,800	256,890,425	284,557,225
1912	1,320	1,278	2,598	27,994,700	263,245,225	291,239,925
1914	1,338	1,265	2,603	29,448,800	268,912,950	298,361,750

TABLE V. — *Distribution of the Number of Loans Granted by the*

Year	Not Exceeding 20 ha.				Between 20 and 50 ha.			
	Number of Holdings	Amount of Loans Mks.	Percentage of		Number of Holdings	Amount of Loans Mks.	Percentage of	
			Total Number of Holdings	Total Amount of Loans			Total Number of Holdings	Total Amount of Loans
1905	239	1,545,350	21.7	6.5	450	6,757,800	40.7	34.6
1914	308	—	23.0	—	563	—	41.1	—

TABLE VI. — *Distribution of Loans, according to Amount*

Year	Up to 10,000 Mks.	Between 10,000 Mks. and 50,000 Mks.	Between 50,000 Mks. and 100,000 Mks.	Exceeding 100,000 Mks.
1914	444	752	101	23

§ 7. POSEN LANDSCHAFT.

Agricultural Credit was extended to small holdings (or peasant holdings), as a result of the amendment of the Rules made on April 28th., 1879, by which peasant landowners, holding land valued at less than 6,000 mks. were granted a right to participate in the *New Agricultural Credit Association*, whilst up to then the minimum value required for the purpose was not less than 5,000 thalers.

The *New Agricultural Credit Association* in 1885 assumed the name of the "*Posen Landschaft*."

• The minimum value of a holding entitled to receive credit was fixed at 4,000 marks in 1884, and at 3,000 marks in 1896. This last value, it is reckoned, corresponds with that of a holding on the produce of which the farmer can live.

New Pomeranian Landschaft, according to the Area of the Holdings.

Between 50 and 100 ha.				Exceeding 100 ha.			
Number of Holdings	Amount of Loans Mks.	Percentage of		Number of Holdings	Amount of Loans Mks.	Percentage of	
		Total Amount of Holdings	Total Amount of Loans			Total Number of Holdings	Total Amount of Loans
275	7,187,000	24.8	30.4	141	8,173,050	12.8	34.6
320	—	24.0	—	147	—	10.9	—

The entrance fees and the charges on the business operations were much reduced in 1896, in favour of small holdings.

For the valuation of holdings, in accordance with the rules for valuation of March 9th., 1902, account is taken of the interests of small holdings. These Rules provide that for holdings the value of which does not exceed 60,000 marks, the estimate must include not only buildings in masonry, but also those built with mortar of loam and straw with fireproof roofs. Much complaint had been made before this date that buildings in masonry were alone taken into account in the estimates. Small holdings have also been considerably favoured by the provisions of the Order of March 28th., 1907, regulating the value of the holdings, and providing that the estimated value should represent for *all* holdings the fourth of the total value of the fields and meadows; in addition, the limitation in regard to the buildings on small holdings (which had to be massive constructions and buildings in mortar of loam and straw with fireproof roofs) was removed at the same time. Finally the amount of the capital in land was increased by 20 % roughly speaking, which also means an increase in the supplements established as percentage of the capital.

The work of the Posen Landschaft is shown in the following tables (Tables VII, VIII and IX). The fact that the number of holdings mortgaged with an estimated value of less than 15,000 marks is increasing, and that such holdings represent more than half the total number of holdings (Table VIII), indicates the degree in which small holdings have shared in the loans since 1896. Even the number of small holdings up to 20 ha. in area, and between 20 and 50 ha. in area has increased both absolutely and in proportion (Table IX).

TABLE VII. — *Total Loans.*

Year	Number of Holdings	Loans Granted
1896.	6,528	261,450,400
1901.	6,643	277,478,000
1904.	7,311	302,755,000
1907.	7,553	335,786,300
1909.	8,316	359,371,800
1911.	8,958	384,190,900
1913.	9,828	415,708,400

TABLE VIII. — *Distribution of Loans among Holdings of Estimated Value respectively below and above 15,000 marks.*

Year	Holdings the Estimated Value of which is less than 15,000 Mks.				Holdings the Estimated Value of which exceeds 15,000 Mks.			
	Number of Hold- ings	Amount of Loans Mks.	Percentage of		Number of Hold- ings	Amount of Loans Mks.	Percentage of	
			Total Number of Hold- ings	Total Amount of Loans			Total Number of Hold- ings	Total Amount of Loans
1896	3,461	—	50.0	—	2,067	—	47.0	—
1901	3,564	—	53.7	—	3,079	—	46.3	—
1904	3,957	—	54.1	—	3,354	—	45.9	—
1907	4,056	21,578,000	53.7	6.4	3,497	314,208,300	46.3	93.6
1909	4,608	23,577,500	55.4	6.6	3,708	335,749,300	44.5	93.4
1911	4,990	25,867,500	55.7	6.7	3,968	358,323,400	44.3	93.3
1913	5,449	28,629,000	55.4	6.9	4,379	387,079,400	44.5	93.1

TABLE IX. --- *Distribution of Loans according to the Area of the Holdings.*

Year	Holdings not Exceeding 20 ha. in area	Per-centage of total Hold-ings Mort-gaged	Holdings of area between 20 and 50 ha.	Per-centage of total Hold-ings Mort-gaged	Holdings of area between 50 and 100 ha.	Per-centage of total Hold-ings Mort-gaged	Holdings Exceeding 100 ha. in area	Per-centage of total Hold-ings Mort-gaged
1896	2,170	33.2	2,400	36.8	640	9.8	1,318	20.2
1904	2,384	33.4	2,637	37.0	694	9.7	1,415	19.9
1913	3,590	36.5	3,880	39.5	955	9.7	1,403	14.3

§ 8. LANDSCHAFT OF THE PROVINCE OF SAXONY.

The Credit Institute approved by the Sovereign on May 30th., 1864 under the name of "Landschaftliches Kreditverband der Provinz Sachsen," assumed in 1888 a legal and public character as the Landschaft of the Province of Saxony, open to all owners of agricultural or forest land in the Province, the yield of which as calculated for the land tax is not less than 50 thalers. The limit fixed for the purposes of the loan was reduced in 1896 to 90 marks net yield, on the supposition that in this way all holdings on the produce of which a family could live might in future receive credit from the Landschaft. As this no longer corresponds with existing conditions on account of the further development of quite small holdings, in 1913 it was provided that the board of management shall have power to grant loans on land the net yield of which as estimated for the land tax is less than 90 marks, provided the produce of the farm suffices for the support of a family. In this way credit has been extended to the smallest holdings.

In 1896 several facilities were granted for the valuation of small holdings, at the same time permitting of an increase of the estimates. Up to that date, an agricultural estimate of the holdings was always required, when the loan amounted to more than 20 times the net yield. In 1896 the Board of Management received power to grant loans on *lettres de gage*, without formal estimate for amounts of not more than 24 times the net yield, if this yield were not more than 1,000 mks., and not more than 30 times the net yield, when the latter did not exceed 500 mks. This process is called "*formlose Abschätzung*" or estimation without formality. The above maxima were raised in 1911 to 2,000 and 1,000 mks. respectively and in 1913 to 3,000 and 2,000 mks. respectively. Already in 1895 the Valuation Commissioner was authorized himself to make the estimate, in the case of quite small holdings; when the net yield exceeded 1,000 marks he had to be assisted by two ex-

perts. Since 1913, with the object of reducing the costs of the loan transactions, the employment of experts was further limited. For estimates on which the land tax is fixed, experts are only required when the Valuation Commissioner or the Board of Management consider their collaboration necessary; however, in the case of the estimates fixed in 1909, based on the *Bonitierungtaxe*, their collaboration may be limited to the case of holdings of more than 100 ha. of fields, meadows or gardens, with more than 100 ha. of forest land, the net yield from which as calculated for the land tax does not exceed 4,000 mks. In 1903, it was decided that buildings were to be considered as to some degree security for the loans, which was above all an advantage for small holdings. For this purpose, henceforth, the buildings, whether dwelling houses or others, belonging to a holding might be taken into consideration for the fourth part of the insurance value assigned to them by a public fire insurance society; but the amount lent could never exceed three times the net yield and the total loan could not exceed 33 times the net yield.

Since 1913 the supplementary loan may be six times instead of three times the net yield calculated for purposes of the land tax, provided it never exceeds the fourth part of the amount for which the buildings are assured.

In the case of "*formlose Abschätzung*" of holdings, the net yield of which is less than 500 marks, and under certain definite conditions, the inspection of the building may be dispensed with.

To facilitate operations, the expenses of valuation have been greatly reduced. Thus, in 1913, the minimum amount of expenditure required for a *Bonitierungtaxe* was reduced from 100 to 50 mks. The charges are therefore really, in the case of small and medium sized holdings, in the majority of instances, less than the real costs.

The Landschaft of the Province of Saxony has therefore not been specially founded for the benefit of large holdings. The organization of its loans, as seen in the following tables, clearly indicates that it is with the small and medium sized holdings that this Institute has from the start conducted most of its credit business. There has been a continual increase in the amount of credit granted to holdings not exceeding 20 ha. in area and between 20 and 50 ha. in area, whilst in the case of holdings more than 100 ha. in area there has been relatively a notable decrease (Table XI).

TABLE X. — *Total Loans.*

Years	Number of Loans on Lettres de gage			Amount of Loans Mks
	Holdings	Nobles' Estates	Total	
1896	1,143	235	1,378	89,616,575
1901	1,529	268	1,797	107,773,125
1904	1,819	306	3,125	132,212,925
1907	about 2,183	about 330	2,513	158,151,575
1909	„ 2,384	„ 350	2,734	172,602,525
1912	„ 2,817	„ 385	3,202	227,996,825
1913	2,927	411	3,338	244,347,475

TABLE XI. — *Distribution of Loans, According to Area of Holdings.*

Year	Not Exceeding 20 ha.		Between 20 and 50 ha.		Between 50 and 100 ha.		Exceeding 100 ha.	
	Holdings	Percent- age of all Hold- ings Mort- gaged	Holdings	Percent- age of all Hold- ings Mort- gaged	Holdings	Percent- age of all Hold- ings Mort- gaged	Holdings	Percent- age of all Hold- ings Mort- gaged
1894	about 300	34.4	about 250	28.6	about 130	14.9	193	22.1
1905	787	38.2	613	29.8	312	15.1	348	16.9
1912	„ 1,075	36.1	„ 900	30.3	„ 475	16	about 525	17.6
1914	1,186	36.3	995	30.5	528	16.1	557	17.1

§ 9. LANDSCHAFT OF THE PROVINCE OF WESTPHALIA.

The Landschaft of the Province of Westphalia was founded as a Society on July 15th., 1877, and, like the Landschaft of the Province of Saxony, only assumed the character of a public credit institute in 1899. It makes no difference between nobles' and peasants' holdings. The only condition for credit is a certain value to be determined in accordance with the net yield as calculated for the purposes of the income tax. The minimum value was first 150 mks., but it has been reduced, gradually, to 50 marks. The amount of the loan at first was a sum twenty two times the amount of the net yield as estimated for the income tax, without consideration of the value of the

buildings. It was afterwards raised to 30 times this amount, provided this did not exceed $\frac{2}{3}$ rds. of the agricultural estimate (that is to say of the net yield actually arrived at by employing the ordinary coefficient 25). Later on, it was permitted that the amount of the loan should be $\frac{2}{3}$ rds. of this estimated value, when it could be shown that since the last cadastral survey, the land mortgaged had undergone essential improvement or its value had been permanently increased.

Great efforts have been made in the last thirty years, both by means of interview and in writing, to make the Landschaft better known. The Westphalian Peasants' Society has availed itself in the matter of all its many and influential relations.

As the following tables show, credit to small and medium sized farms has occupied a great deal of the attention of the Westphalian Landschaft. This is already seen in the average amount of the loan granted (Table XII); the increase in the number of small and very small holdings mortgaged (Table XIII) shows it still more clearly.

TABLE XII. — *Total Loans.*

Year	Number of Members	Amount of Loans
1896	2,970	46,075,000
1901	3,309	56,669,200
1904	3,663	66,118,700
1907	4,117	77,136,200
1909	4,587	88,575,800
1912	4,986	102,904,300
1913	5,114	107,371,400

TABLE XIII. — *Distribution of Loans according to Area of Holdings.*

Year	Not Exceeding 20 ha.		Between 20 and 50 ha.		Between 50 and 100 ha.		Exceeding 100 ha.	
	Holdings	Percentage of Total Holdings Mortgaged	Holdings	Percentage of Total Holdings Mortgaged	Holdings	Percentage of Total Holdings Mortgaged	Holdings	Percentage of Total Holdings Mortgaged
1896	about 1,200	40.4	1,160	39	380	12.8	230	7.8
1905	1,597	41.5	1,539	40	493	12.8	217	5.7
1913	2,175	42.5	2,100	41.1	640	11.8	199	3.9

§ 10. AGRICULTURAL CREDIT ASSOCIATION FOR THE PROVINCE
OF SCHLESWIG HOLSTEIN.

The Schleswig Holstein Agricultural Credit Association was founded in 1882 for all agricultural and forestry holdings of the province, of a net yield of at least 150 marks. This amount was reduced in 1900 to 50 marks. This Institute is concerned almost exclusively with peasant holdings. Its rule for estimating values is based on an estimate of the rental value (*Pacht-wertschätzung*) fixed in proportion to the net yield as calculated for the income tax. In the case of holdings with a net yield of less than 1,000 marks a shorter method is followed. The ordinary maximum amount of loan is fixed at 30 times the net yield, but in certain special cases this limit may be passed. Very small holdings generally receive loans relatively higher than the large holdings in consideration of the fact that they are always in demand and that it is therefore possible to sell them under favourable conditions and that also the value of the buildings represents in their case a larger proportion of the total value, and that the net yield of the holding is always higher, as the landowner and his family themselves cultivate the farm and can dispense with outside labour.

The following tables show the uninterrupted progress made by this Association in the last 20 years and at the same time the increasing amount of credit granted by it to small holdings.

TABLE XIV. — *Total Loans.*

Year	Number of Members	Amount of Loans Mks
1896	562	11,450,900
1901	886	16,162,100
1904	1,685	30,546,800
1913	about 3,000	66,689,300

TABLE XV.—*Distribution of Loans,*

Year	Not Exceeding 20 ha.				Between 20	
	Holdings	Amount of Loans Mks	Percentage of		Hold- ings	Amount of Loans Mks
			Total Holdings Mort- gaged	Total Amount of Loans		
1896	about 140	—	25.0	—	250	—
1905	554	3,955,700	27.5	—	918	15,166,800
1914	950	—	29.7	—	1,500	—

§ II. SCHLESWIG HOLSTEIN LANDSCHAFT.

The Schleswig Holstein Landschaft was founded in 1895 for all nobles' estates of the province, exclusive of the Duchy of Lauenburg, provided that their net yield as calculated for the income tax were not less than 1,500 marks. Its sphere of action was extended in 1905, by the admission of all farm or forest holdings of the province of Schleswig Holstein, exclusive of the Duchy of Lauenburg and the principality of Lübeck belonging to the Grand Duchy of Oldenburg, the net yield from which was at least 150 marks. In 1905 the limit was reduced to 50 marks, for all holdings in the district of the Landschaft, and finally, in 1912, the criterion of the net yield was abandoned and all holdings with at least 5 ha. cultivated, serving to support a family, were granted loans. In this way all holdings utilised for agriculture, whether belonging to nobles or peasants, could receive credit from the Landschaft, on condition of their at least providing their owners with means of subsistence. The loan is granted either on the basis of the land tax assessment, or in accordance with what has been called the *Bonitierungstaxe*. In the first case the amount is fixed at 35 times the net yield as calculated for the land tax, and at most at ten times the value in use of the dwelling house. The most recent provisions in regard to the *Bonitierungstaxen* (1913) greatly favour very small holdings; the management may, if requested, undertake itself to provide all the material required for the valuation, and may also dispense with some of this material. In the case of holdings not exceeding 100 ha. in area, the net yield from which as calculated for the land tax does not amount to 1,000 mks., it is not necessary to present a list of buildings and live stock, nor a return of the average yield for the last five years.

according to Area of Holdings.

and 50 ha.		Between 50 and 100 ha.				Exceeding 100 ha.			
Percentage of		Hold-ings	Amount of Loans Mks	Percentage of		Hold-ings	Amount of Loans Mks	Percentage of	
Total Holdings Mort- gaged	Total Amount of Loans			Total Holdings Mort- gaged	Total Amount of Loans			Total Holdings Mort- gaged	Total Amount of Loans
44.5	—	130	—	23.1	—	42	—	7.4	—
45.5	—	434	13,637,100	21.5	—	111	6,379,100	5.5	—
46.9	—	640	—	20.0	—	110	—	3.4	—

The progress of the Schleswig Holstein Landschaft seen in the following tables, has been, especially since 1907, simply enormous, and it must be recognised that the increase in the business in relation to the nobles' estates has been far inferior to that in relation to peasants' holdings. The business in connection with peasants' holdings so preponderates, that this Landschaft, first founded in the exclusive interest of large nobles' estates, has completely altered its character.

In proof of this, it is enough to consider that whilst the average amount of the loans granted in 1904 was 205,000 mks. and in 1907 201,000 mks., it is now 31,000 mks. and if we calculate at 22,000,000 mks. the total amount of loans for nobles' estates, the average for the peasants' estates does not exceed 26,000 marks in round numbers.

TABLE XVI. — *Total Amount of Loans.*

Year	Peasants' Holdings	Nobles' Estates	Total	Amount of Loans
1896.	—	18	18	2,246,150
1901.	—	30	30	5,102,950
1904.	7	75	82	16,886,450
1907.	79	86	165	23,222,100
1909.	343	96	439	32,144,700
1912.	2,388	108	2,496	71,418,850
1914.	3,225	116	3,241	105,041,700

• TABLE XVII. — *Distribution of Loans according to Area of Holdings.*

Year	Not Exceeding 20 ha.		Between 20 and 50 ha.		Between 50 and 100 ha.		Exceeding 100 ha.	
	Holdings	Percent- age of Total Holdings Mortgaged	Holdings	Percent- age of Total Holdings Mortgaged	Holdings	Percent- age of Total Holdings Mortgaged	Holdings	Percent- age of Total Holdings Mortgaged
1905	1	1	4	4.4	4	4.4	83	90.2
1914	820	25	1,030	32	1,125	35	250	8

§ 12. CONCLUSION.

In the last few decades the Landschaften have assumed the special duty of extending land credit among peasant landowners. A whole order of opinions, formerly prevailing among the Landschaften, have been thoroughly modified; the peasant, it was said, has no need of credit; he is not yet in a position to profit by it, and, apart from this, small holdings, it was affirmed, could not offer the same security as large estates. The managers of the various societies have found that in offering small landowners a credit corresponding to the size of their holdings, they have increased their power of resistance and their yield, to the advantage of the general social economy. The Landschaften have therefore employed all the means at their disposal to provide small holdings with the credit they require, and to bring them into their sphere of action. The following table will show the reader the results obtained. Whilst in 1905, the proportion of holdings mortgaged on the basis of the agricultural valuation, of an area not exceeding 20 ha. and of an area between 20 and 100 ha., was respectively 5.9 % and 21.7 %, the figures have now risen to 8.3 % and 28.3 %; the loans granted have thus increased by 2.4 % and 6.6 % respectively. The holdings mortgaged of area not exceeding 100 ha. since 1905 have increased altogether by 20,000 and from 10.5 % to 14 % of all the holdings, which shows an increase per cent of 3.5, whilst the proportion of those above 100 ha. in area mortgaged has fallen from 65.8 % to 64.1 %, a decrease of 1.7 %.

The spread of agricultural credit in the districts of small holdings has for its first result an improvement in the conditions of the holdings of this class. It must also be considered from the point of view of the formation and encouragement of small holdings and the development of home colonisation. The question of small holdings, with which all agricultural countries are occupying themselves can only be settled by assuring this class of holding, to as large a degree as possible, of loans at small cost, to be repaid only in instalments. Besides this, the extension of the Landschaft credit to peasants is without doubt of more general public importance and is to be included among the problems of small holdings to be solved.

TABLE XVIII. — *Proportion of Holdings Mortgaged to the Total Number the Right of Which to Receive Credit has been Recognised, according to Area, between the Years 1905 and 1912, or 1913.*

Landschaft	Holdings not Exceeding 20 ha. in area			Holdings between 20 and 100 ha. in area			Holdings Exceeding 100 ha. in area			Year
	Holdings Mortgage- able	Holdings Mortgaged	%	Holdings Mortgage- able	Holdings Mortgaged	%	Holdings Mortgage- able	Holdings Mortgaged	%	
1. East Prussian Landschaft	38,021	2,377	6.2	25,870	9,418	36.4	3,400	2,953	86.8	1905
		3,692	10.3		10,208	39.4		2,823	83.0	1914
2. Silesian Landschaft	94,000	7,570	8.0	16,477	5,583	33.9	2,750	2,327	84.6	1905
		9,370	10.0		6,273	38.1		2,205	80.2	1913
3. New West Prussian Landschaft	27,378	3,160	11.5	13,715	4,547	33.2	2,000	1,220	61.0	1905
4. New Credit Institute for Brand- enburg	41,500	4,650	17.0	23,500	6,700	48.9	2,100	1,155	57.7	1914
		3,591	8.6		5,694	24.2		1,430	68.1	1905
		4,008	9.6		6,156	20.2		1,287	61.3	1914
5. New Pomeranian Landschaft	30,116	239	0.8	11,973	725	6.1	2,500	1,604	64.2	1905
		308	10.2		883	7.4		1,412	56.5	1914
6. Posen Landschaft	41,125	2,384	5.8	12,658	3,331	16.3	2,020	1,415	70.0	1905
		3,590	8.7		4,835	38.9		1,403	69.5	1913
7. Landschaft of the Province of Saxony	42,357	787	1.9	16,477	925	5.6	1,610	348	21.6	1905
8. Landschaft of the Province of Westphalia	37,746	1,186	2.8		1,523	9.2		557	34.6	1914
		1,458	3.9	11,836	1,908	16.1	303	204	67.3	1905
		2,175			2,740			199		1913
9. Agricultural Credit Association for the Province of Schleswig-Holstein		554	2.4		1,352	6.3		111	10.2	1905
		950	4.1		2,140	9.9		110	10.2	1914
	22,997			21,586			1,091			
10. Schleswig Holstein Landschaft		1	—		8	—		83	7.6	1905
		820	3.6		2,155	10.0		250	2.3	1914
Total	375,240	22,121	5.9	154,101	33,491	21.7	17,774	11,695	65.8	1905
		30,967	8.3		43,613	28.3		11,101	64.1	1914
				529,341	55,612	10.5				1905
					74,580	14.0				1914

+ Estimated Figures.

COSTA RICA.

GOVERNMENT MEASURES FOR THE DEVELOPMENT OF AGRICULTURAL CREDIT

With a view to meeting the economic crisis in production in the country, the products of which are essentially agricultural, which has been occasioned by the European conflagration, the Government of Costa Rica, after much fruitless negotiation with the members of the financial world there, created, as has been shown in a former number of this Bulletin (1), the International Bank of Costa Rica, and instituted agricultural credit boards in the localities where they were most required. In this way the Government proposed to provide the assistance the exceptional circumstances call for, by means of loans in cash both to the large producers and exporters and the small landowners and farmers.

Official credit once organized in this way, the Government endeavoured to encourage its development as far as possible. This was the object of the two Decrees, the principal provisions of which we shall consider below, on *warrants* and agricultural pledge, which complete the general provisions mentioned above, the object of which, as we have said, is to arrest the economic crisis in agriculture occasioned by the war in the old world.

§ I. THE INSTITUTION OF AGRICULTURAL PLEDGE.

By Decree No. 3 of September 13th., 1915, the Government instituted contracts of agricultural pledge as security for loans in money to farmers.

In accordance with this Decree, the agricultural pledge may consist in the following articles: (a) machinery generally, farming implements and such implements as are used in agriculture, the working of forests and factories or in industry; (b) livestock of any kind and their produce, as well as moveables serving for the farm work; (c) crops of any kind of the

(1) See Article, "*The Influence of the European War on Production and Credit in Costa Rica*", in our Number for September, 1915.

agricultural year in which the contract is established, whether standing crops, or crops already harvested etc.

The objects pledged serve as security to the creditor, who has a special preference right in regard to them up to the amount of the loan, interest, commission and charges according to the conditions of the contract and the provisions of this law.

The debtor will retain possession of the object pledged in the name of the creditor; the possessor of the pledge is bound to preserve it and is responsible for deterioration or damage it may suffer through his fault or negligence.

The Decree under consideration establishes that the preference rights of the creditor shall last for two years from date of registration of the contract; they burden the insurance claim paid for the object pledged, as well as compensation paid by persons responsible for loss or deterioration of the objects pledged. The agricultural pledge, however, does not affect the preference rights of the landowner for a year's lease due or the amount due to him in money for the use or enjoyment of the object or the farm during the same period, or rent and amounts due previously to the constitution of the pledge, provided the contract under which they are due be a public deed duly registered or presented for registration before the date of registration of the contract of agricultural pledge.

One of the most important provisions of the Decree instituting agricultural pledge in the Republic of Costa Rica is that henceforth mortgages on holdings shall not burden property that may be the object of agricultural pledge as above indicated, nor compensation the mortgager may receive in payment of insurance claims, or for compulsory expropriation or injury to the above articles when pledged. Any clause contrary to this provision shall be null and void.

The agricultural pledge contract shall only have effect for third parties from the moment it is presented for registration in the register of agricultural pledges, pledges on livestock and industrial pledges, which shall be opened in each canton. This contract can be constituted by public or private deed, in which the full name of each of the contracting parties, his status and condition are specified.

The agricultural pledge certificate delivered by the official of the office where it is registered will be transferable by endorsement; all who sign or endorse an agricultural pledge certificate, except the official who makes it out and any witnesses there may be, shall be jointly and severally liable for the obligations it guarantees.

The livestock on which a pledge has been constituted cannot be removed from the farm on which they are at the moment of its constitution, and much less leave the district of the registration office in which the pledge is registered, unless the official of the office has made a note to the effect on the original document and notified the creditor and any endorsers there may be. There is exemption from these restrictions in the case of the livestock serving for the ordinary work of the debtor, specification of which must be made in the pledge contract.

The crops and produce on which an agricultural pledge has been constituted may be sold for cash by the debtor, if ready for sale, provided the price is not below the day's market price, and the amount exceeds the whole sum secured on the crops and produce; however, if all the crops and produce are sold at the same time, the debtor is bound to pay the creditor the amount of the debt within three days. This term may be extended in reasonable proportion to the distance, but may never exceed 8 days.

The debtor may at any moment relieve himself of the burden on the goods pledged by paying the creditor the amount of the loan, with the interest, commission and accessory charges mentioned in the contract.

Finally, the decree, the principal provisions of which we have indicated, provides that during the term of the contract, the creditor may himself, or by means of an agent or representative authorized by him, examine the condition of the articles pledged or the fields producing them, and if, in his opinion, they run a risk of being damaged or deteriorated through the debtor abandoning them or neglecting them, he may inform the competent authorities. They shall appoint an expert to give his opinion, and, if it agrees with that of the creditor, the debtor may be obliged to supervise the articles pledged properly, or to pay the costs of their supervision.

§ 2. DECREE AUTHORIZING THE ISSUE OF WARRANTS BY GENERAL WAREHOUSES.

The Government has recently decreed the institution of three general warehouses at San José, Puntarenas and Limón, reserving the right to found others if it judges necessary.

The warehouses in question, in addition to their general functions, consisting in the acceptance of deposits, and the supervision and preservation of goods, must issue deposit certificates with corresponding warrants.

We shall briefly describe the organization of this new service for the encouragement of credit, intended chiefly for the benefit of the rural population, as Costa Rica is essentially an agricultural country.

The deposit certificates and warrants with which we are concerned may be inscribed or to bearer, as the depositor desires, and will be negotiable and transferable, by way of cession, endorsement and simple gift in either case.

According to the Decree, the endorsement of the deposit certificate or the warrant will have the following effect: (a) the endorsement of the two together will transfer the ownership of the produce or goods deposited; (b) the endorsement of the warrant only will pledge the produce to the person to whom it is endorsed; (c) the endorsement of the deposit certificate alone will transfer the ownership of the goods deposited, while the rights of the holder of the warrant continue to exist.

A holder of a deposit certificate and not of the warrant may withdraw the goods before the time fixed and payment of the credit secured on them, on delivering to the managers of the warehouse the amount of the credit in question with interest, calculated up to the date fixed, and this amount will be paid in its turn to the holder of the warrant on delivery of his warrant.

The holder of a warrant not paid at date the debt secured by it is due, may have it protested like a bill of exchange and advise the manager of the warehouse, so that he may retain the articles deposited in order to ensure payment of the debt which takes precedence over the depositor's other debts.

Part IV: Miscellaneous

FRANCE.

THE LAW OF JULY 10TH., 1915 ON HOME INDUSTRIES.

OFFICIAL SOURCES :

ENQUÊTE DE L'OFFICE DU TRAVAIL SUR LE TRAVAIL À DOMICILE DANS L'INDUSTRIE DE LA LINGERIE (*Labour Office Enquiry into the Home Manufacture of Underclothing*), 5 Volumes, 8vo. Paris. Imprimerie Nationale; 1907-1911.

LOI DU 10 JUILLET 1915 ET TRAVAUX PRÉPARATOIRES (*Law of July 10th., 1915 and Preparatory Labours*).

CIRCULAIRE DU MINISTRE DU TRAVAIL AUX INSPECTEURS DIVISIONNAIRES DU TRAVAIL, EN DATE DU 24 JUILLET 1915 (*Circular of the Minister of Labour Forwarded to the Divisional Inspectors of Labour, July 24th., 1915*).

§ 1. MANUFACTURE OF UNDERCLOTHING IN COUNTRY DISTRICTS.

The home manufacture of underclothing carried on by women in the French country districts is of importance on account of the additional amounts in this way added to incomes derived from purely agricultural work. However, it must be acknowledged conditions of the industry have long been seriously criticised. Complaint is made that it is badly paid, that, in order to obtain a trifling profit, the working day has to be very long and the conditions under which the work is done are not healthy. Accordingly, with the object of testing the justice of these strictures, the Labour Office instituted a long enquiry, lasting from 1905 to 1908, in 24 departments, in the course of which 2,300 individuals, manufacturers, dealers, men and women contractors (*entrepreneurs* and *entrepreneuses*), agents (*dépositaires*), and needlewomen working at home, were examined. Let us first of all summarise the results of the enquiry.

This home industry is not independent, but implies a business undertaking concerned with the distribution and remuneration of the work. Such undertakings are most usually conducted by women and the number of these women contractors (*entrepreneuses*) is found to be continually increasing. In such and such a locality, where, some ten years ago, there were three of them, there are now ten ; in the department of Cher, twenty or thirty years ago, the country districts only worked for firms in their neighbourhood ; to day, there is scarcely a village in the region without such a contractor or a depot. Indeed, under the contractor or on an equality with her, and sometimes difficult to distinguish from a contractor, we find, in some districts, (chiefly Cher, Loir-et-Cher, Indre and Sarthe), an agent (*dépositaire*), sometimes engaged by a linen goods manufacturer, a fancy goods warehouse, a shirtmaker or so on, and sometimes by one of the above contractors.

The real agent is a kind of outside superintendent ; she is paid directly by her employer, by the day or by the dozen, in proportion to the quantity produced etc. There are even agents whose work is of such slight importance that they might be more accurately described as first class needlewomen ; for their limited work as agents they receive no special wage ; the employer merely favours them and provides them with work so that they are never unemployed. We could (if there were no danger of laying too much stress on the difference), keep the name of depot manageress (*gérante de dépôt*) for the first group, but, whether we make the distinction or not, it is certain that the industrial situation of the agents varies very considerably and there are many degrees between the depot manageress who has her own office, where the needlewomen come to learn what work they have to do at home, and the agent who divides the parcels of shirts sent to her among three or four neighbours.

But, generally speaking, all the agents have the same duties : they receive a certain amount of work from their employers which they distribute among the local needlewomen, the recruiting of whom constitutes the chief reason for their existence ; sometimes they visit the women working, they always collect the articles when made and keep them at the disposal of the manufacturer or contractor.

Such is, generally, the character of the ordinary agent, at least if the other class of agent of whom we have still to speak developed out of this. When the manufacturer no longer pays the agent at all, if she is generally charged to settle with the women she engages, she pays herself out of the price of the goods and so becomes a contractor ; when this work is done by the contractor, the agent becomes a sub-contractor. Easy as it is to distinguish theoretically between agents on the one hand and contractors or sub-contractors on the other, it is so much the less simple when the title of agent is given to persons who are certainly contractors or sub-contractors and not simple intermediaries. This confusion was felt during the enquiry and it was very often not possible to discover the precise character of the agents.

What might be said to characterise the agents when they act as con-

tractors is that generally they are not so to say professional contractors ; as they are not paid by their employer ; they charge the needlewomen they recruit as fair a price as possible for their services ; the difference between the prices paid to them and those they themselves pay are generally very slight, and the small amount they keep for themselves gives them a financial position that would seem to be appreciably inferior to that of the real agents.

That they are paid as nearly as possible the value of their services is certain. One of the reasons of their modest charges is the increasing number of agents. We must note this increasing number of agents, as also of principals and contractors at least in the regions where the organization of the depots is habitual. In Indre, Cher and Sarthe, this increase is affirmed by a large number of the persons examined ; in many unimportant villages there are several agents (in one place which has 760 inhabitants there are no less than 6) and, although the trade in underclothing is far from being in a state of crisis, these numerous agents, who compete against each other and take away each others' employees, soon cease to supply their employers with enough goods or with articles produced sufficiently cheaply ; the employers seek for new agents (as they seek for new contractors) in localities or regions to which home industry has not yet penetrated. Under these conditions, competition between the agents assumes such proportions that the depots must realise a very small profit if they continue to exist ; and even needlewomen who have undertaken the management have sometimes been obliged to close their depots.

A second reason that may serve to explain the poor remuneration is that generally the women only consider it as an addition to their incomes. Large, indeed, is the number of agents who only engage in the manufacture of linen goods as an auxiliary occupation, and, like many contractors or sub-contractors, as their principal business engage in the sale of various articles.

Of those shopkeepers who manage a linen goods business or depot, and those contractors or sub-contractors or agents who carry on a trade, no attempt has been made to draw up a list, but it was possible to collect sufficiently complete information on the point for a certain number of villages in the districts visited.

First of all, in the department of Cher, in the neighbourhood of Henrichement, there are it seems many shopkeepers who are contractors ; and similarly at Saint-Amand and, above all, in the adjoining country, where many sub-contractors carry on a trade, usually as grocers ; at Aubigny one of the two contractors is a grocer. At Graçay and Saint-Outrille one out of six contractors is a shopkeeper, selling cloth ; at Châteauneuf, a clothier contracts to get underclothing, made, no other contractor is reported ; at Lignéres, there are some fifteen men and women contractors, half of them being fancy goods dealers or grocers, at Dun-sur-Auron, the proportion is the same, seven in over a dozen ; two sell fancy goods, one only cloth, one groceries, haberdashery, cloth and wooden shoes, one coffee, and another sewing machines.

In Allier, it seems from two statements which confirm each other that the number of shopkeeping-contractors is legion.

At Villefranche (Loir-et-Cher), there are some ten contractors. "Almost all the men and women contractors are engaged in the sale of some article. Only one sells nothing at all; some of the contractors of longer standing carry on only an unimportant business; this is not the case with the new contractors; they sell groceries or clothes."

At Selles-sur-Cher, it appears there are only two fancy goods dealers among some ten contractors; but, in the adjoining villages, sub-contractors have shops, above all for sale of groceries.

In Indre, all the agents of Méobecq, except one, carry on trade, and at Chabris a large number do.

To sum up, we conclude (though it cannot be absolutely affirmed, as the enquiry has not given all the information it might have on the point) that the contractors or agents engaged in trade are to be found chiefly in the centre of France: Cher, Indre, Loir-et-Cher, Allier and Sarthe, where we may imagine so many agents and small contractors could not live by the linen goods industry alone.

Before the presentation of this review of the districts and localities where there have been found contractors or agents for underclothing who are at the same time shopkeepers, it was understood that those shopkeepers who have taken up the underclothing business, or those contractors and agents who have taken to trade make their chief profits out of their trade. It will not be without its advantage to show, by means of example or by reproducing various statements, the relation these two groups of occupations bear to each other.

A contractor or agent cannot live without carrying on a small trade; such is the statement incessantly repeated in certain regions; or, more truly, the underclothing business or depot is expected to enable the trade to live or prosper.

"It is," says a fancy goods dealer who is an underclothing contractor, "the underclothing business which enables the small dealer to maintain himself, for it is by means of the work he himself distributes in the country he assures himself of the continued support of a certain *clientèle*."

Another fancy goods dealer, formerly an underclothing contractor, gave more precise information. According to him, if a dealer who is also a contractor is to find his profit in getting underclothing made, the needlewomen he employs must agree to spend at least half their earnings at his shop; this is often arranged, it appears; and many firms, in the departments of Cher and Indre make large profits in this way; one of them only gains 2,000 frs. on 30,000 frs. worth of underclothing it gets made a year, but its other business, is greatly extended on account of its underclothing business, "for the needlewomen are, so to say, obliged to get their supplies from the contractor shopkeepers and it generally happens that they, taking advantage of the situation, raise their prices."

An underclothing contractor of Villefranche-sur-Cher who, at least

according to her own account, does a very small trade, declares to the same effect:

“ Two new contractors are at the same time pedlars: they go from village to village distributing work and selling groceries and haberdashery. The needlewomen go to the contractors who sell goods to them. They are above all attracted to those who sell articles that tempt their vanity. To attract the needlewomen, the dealers slightly raise their piece prices, and so ruin the other contractors. The dealers themselves cannot gain much out of underclothing; but as they arrange that the money made by the needlewomen is only spent with them, they increase their custom in this way and so get their own money back. ”

We may reproduce the following lines relating to an agent of Méobecq (Indre), to the same effect: “ This sub-contractor, like most of her fellows in the country, only manages an underclothing depot, as an accessory to her principal business and in order to gain custom; the women she gives work to prefer to supply themselves from her shop in return. The underclothing business scarcely brings her in anything; she deducts 10 %, but only receives from 230 to 300 francs worth of work a month. ” Her gross profit as sub-contractor would then only be from 25 to 30 frs. a month. It may be understood (though the figures cannot be given) how trifling her net profit must be.

Sometimes this combination of linen manufacture and trade gives no profits but results in a loss. The customers attracted by the offer of work take goods out of proportion to their gains, and to give them credit is to lose. On the other hand in addition to the expenses the employer must support, many inconveniences to which he is exposed by the needlewomen which make his trade difficult, his responsibility etc., have to be considered, so that if the women do not take enough of his goods, or rather if he is unable to make them spend a certain part of the money he pays them in purchases from him, the business is not successful and he has to stop it.

Thus, payment in kind is the more or less necessary consequence of a contractor or agent engaging in trade.

§ 2. PROVISIONS OF THE LAW OF JULY 10TH., 1915.

However crying this abuse is, it is of slight importance in comparison with those arising out of home industry in the towns, where the needlewomen no longer consider it as accessory labour, but regard it as their principal business. The excessively long hours, and the extremely low wages have long called for legislative intervention. This intervention, long discussed and studied, took form in the law of July 10th., 1915, by which the country needlewomen will also benefit. Its object is to ensure a minimum wage for women occupied at home in the underclothing business, who are too often quite insufficiently remunerated. Although it very opportunely corresponds with the development of home manufactures

(overcoats, trousers, shirts, underdrawers, tents, etc.), during the war for the benefit of the soldiers it is not a law passed to meet the circumstances of the moment. It originated in the numerous complaints, and numerous enquiries, which, in the course of many years, have revealed the decrease in the wages of needlewomen working at home. The matter has been under consideration for many years.

To understand the limits of the application of the law, we must consider on the one hand the persons and on the other the articles to which it applies.

With regard to the persons, the law only contemplates needlewomen working at home. It leaves out of consideration men working at home and employees in workshops. However, once the minimum wage is fixed for needlewomen working at home, men working at home in the same industry and doing the same work, who receive wages less than this minimum, may sue their employers before boards of arbitration or magistrates for payment of the difference (art. 33*m*). The civil action of associations contemplated in article 33*k* may also lie in this case.

The law does not define home industry, but the Circular of the Minister of Labour of July 24th., 1915 gives, for purposes of indication, certain characteristics of paid home labour.

The work is done to the order either of a manufacturing or commercial establishment, or of an intermediary. It is performed in a building either serving as dwelling house or as an outhouse, by a finishing hand who works either alone or with the assistance of the members of his or her family or even with that of other workers. Most usually the material is supplied by the establishments or the intermediaries, except in the case of additional supplies being purchased by the finisher.

The workers at home thus defined are distinguished from small artisans also working at home, but directly for customers and in reality small principals.

No distinction as to nationality is made in the law, which protects equally all men or women working at home in France, whether they are French or foreigners. M. Berthod, the first to report on the law to the Chamber of Deputies, expressly states this in his report.

The law again does not contemplate all home work; it applies only to the "manufacture of clothes, hats, boots and shoes, underclothing of every kind, embroidery, lace, feathers, artificial flowers and any other work coming under the head of clothing industry" (art. 33).

In addition to the objects mentioned above, we find from the preparatory labours that the law only intended to include under the name of clothing industry the manufacture of clothes properly so called. Especially it does not include under this head, manufacture of jewels and rosaries or ribbon making. Still, article 33*m* makes it possible to extend the law so as to apply to other industries not expressly contemplated in article 33. This extension may be made by Government Regulations on the suggestion of the Superior Council of Labour.

The provisions of the law may be summarised as follows:

I. — By means of a special procedure, a minimum rate of pay is established and published;

II. — The contractors must pay their needlewomen at a rate at least equal to the minimum so fixed, failing which, adjustment of the wages may be obtained by means of a civil suit;

III. — To facilitate comparison between the minimum rate established and that paid by the contractor, the latter must go through certain formalities, and non-observance of this provision makes him liable to be punished by the law.

The law contemplates three kinds of minimum wage or scales which it is advisable clearly to distinguish in order to facilitate the understanding of what follows:

1st. A minimum *time* wage fixed by the labour council or the departmental wages committee;

2nd. A minimum *piece* wage, for articles manufactured in series, established by the board of labour or the professional experts' committee

3rd. Piece prices, fixed by the contractor, which must be entered by him on the tickets or in the book he sends the needlewomen and in certain cases he must have posted publicly.

All these wages or rates are of course independent of any provision of material. This is evident, by definition, in the case of the time minimum (art 33e); it is equally true for the piece wage or rate fixed by the committee of experts, since by definition it must permit of the minimum net payment per hour for the time required for making the piece (art. 33g).

The same holds good in the case of piece prices fixed by the contractor and posted by him (art 33b) or entered in the passbooks (art. 33c). This is seen in the last phrase of the first paragraph of article 33c: "The net piece prices may not be lower for the same articles than the prices publicly posted in accordance with the foregoing article."

§ 3. ORGANIZATIONS CHARGED TO FIX THE MINIMUM WAGES.

It is to the boards of labour, in the first instance, the law entrusts the care of establishing the minimum wages (art. 33e) as well as the time necessary for the manufacture of the articles (art. 33g).

The labour boards in question are the advisory labour boards contemplated in the law of July 17th., 1908. As these boards are still very few and none of them has been created for the professions contemplated in the law with which we are concerned, it is at present necessary to have recourse to the foundation of the wages committees and professional committees of experts, by which according to the law they may be substituted.

Wages Committees. — Article 33f of the law regulates the formation of these committees.

It is for the prefects to arrange for their creation. They must first establish the number of men and women employees and of employers who should compose the committee, taking into consideration the importance of the interests at stake and after consulting on the matter with the labour inspection department and competent persons belonging to the professional group concerned.

The number of members of each class may vary from two to four and must be the same for both classes.

They must then cause the members to be nominated. Two cases will present themselves :

(a) If there are arbitration boards having jurisdiction in the department, the prefect must invite the presidents and vice presidents of the sections of these boards to nominate the employers and employees to sit on the committee. The law has not stated how this nomination is to be made. By analogy with article 33g, which contemplates a meeting of presidents and vice presidents of sections of the arbitration boards to designate members of local committees of experts, the Minister of Labour judges that it is best to follow the same procedure in the appointment of the members of the departmental wages committee. It is, besides, easier to obtain the agreement desired by the law in such a meeting, than when the parties concerned are consulted separately.

It may be admitted that the agreement is attained in the case of a candidate who has the majority of the votes of the arbiters who are masters and of those who are employees.

The candidates elected must be engaged in the industries contemplated in the law under consideration, that is to say, until paragraph 2 of article 33^m comes into force, in clothing manufacture. It is the only condition necessary for election. It is not absolutely necessary that the employers appointed should give out work to be done at home, nor that the employees should belong to the class of household workers ; it is enough that both be engaged in the above industries. It is, however, recognised as desirable that the choice should fall on persons belonging to the special industries the work of which is in question. It is also recognised as desirable as far as it is possible, in order to facilitate the work and limit the expenditure, that those persons should be in preference chosen who live in the town in which the sittings of the committee are held.

(b) In the absence of arbitration boards, or if the presidents and vice-presidents have been unable to agree, the prefect must advise the president of the civil court of the chief town of the department and beg him to designate the members.

If in the meetings of presidents and vice-presidents persons not belonging to the clothing industry have been designated ; or if, generally, less than all the employers or employees than are required for the committee have been designated, the president of the civil court must likewise complete the list and supply the missing names, as in the case of no agreement being come to.

The law has not expressly fixed the term of office of the members of the committee. But as the minimum wage must be revised, according to article 33e, at least every three years, the circular of the Minister of Labour prescribes that as a rule the committees shall be appointed every three years. This period is also that fixed by the law in the case of the councillor to the court of cassation charged to preside over the central committee that shall judge in the last resort (art. 33f.). Let us add that there is nothing to prevent the members of the departmental committees being reappointed at the end of each three years.

The presidency of the departmental wages committee is assigned by the law to the magistrate or the senior magistrate in office in the chief town of the department. Therefore he must see that the business is properly conducted.

A decree of the prefects informs those concerned of the institution of the departmental wages committee and its composition. It establishes the term for which the members are appointed and from what date and indicates, it need be, the measures taken to facilitate its mission. A later decree publishes the result of the nomination of members regularly made, giving the names.

Professional Committees of Experts. — In the absence of labour boards, that is to say in most cases, the prefects will have to institute in each department one or more committees, called *professional committees of experts*. (art. 33 g).

The prefects must decide in what centres and for what professions such committees must be formed and fix the limits of their jurisdiction. They must consult persons qualified to represent the professions, and the professional groups concerned; they must also consult the wages committee and the labour inspector. On account of their technical mission, these committees of experts may be as numerous as there are clearly distinguished clothing industries carried on in the district.

In appointing the members of the professional committees, the prefects shall follow the procedure indicated above for the departmental wages committees. One difference, however, is to be noted. When there are no arbitration boards in the department or if the employer and employee presidents have not been able to agree, it is the prefect who must appoint the members of the committee of experts. For the purpose the departmental wages committee must be consulted.

The remarks made in the case of the departmental wages committees in regard to professional speciality and residence are in this case even more insisted on, and, in respect to residence, it is easier to conform to them.

Central Commission. — In order to decide in the last resort in regard to protests against the decisions of the labour councils, wages committees and committees of experts, a central commission is established at the Department of Labour.

This commission must include, for each case dealt with, two members (an employer and an employee) of the labour council or the departmental committee that has fixed the minimum wage.

§ 4. WORKING OF THE COMMITTEES.

The meetings of the departmental wages committee and the professional committees of experts are called by the magistrate, who is president and fixes the agenda. The Government must not intervene in their labours. It must, however, facilitate their work, as far as possible, providing them with the offices, documents, and the office furniture required. At their desire it shall place, as far as is possible, an employee at their disposal to expedite the work of the secretariat. Among the documents to be communicated to the committees are, in the first place, the memoranda attached, by virtue of the decree of August 10th., 1899, to the contracts of purchase made by the State, the Departments, the Communes, and the public charity establishments. A very large number of these memoranda have just recently been drawn up for the supply of clothes and underclothing to the army. The committees will find in them abundant recent data, which will greatly facilitate their work.

Establishment of the Minimum Wage. — The labour boards or wages committees, for which article 33 makes provision, must first establish the rate of daily wages habitually paid, in accordance with which the minimum wage is to be fixed.

Article 33c indicates the rules to be followed in the matter:

(1) When the home industry is found in the district competing with similar work in workshops, the daily rate of wage established will be that habitually paid in the workshops to needlewomen of the same profession and of average skill in performing the various kinds of work of their profession. In regard to the average habitual skill, which had to be ascertained, M. Berthod, who reported on the proposed law to the Chamber of Deputies, quoted by M. Morel, who reported to the Senate, says: "Of course the wages contemplated must be the wages of the needlewoman who has no special qualifications giving claim to remuneration at a high rate, but is the ordinary needlewoman, who usually performs the various kinds of professional work."

(2) When the home industry has no competitors in the district, but we find in the district or in similar districts workshops in which needlewomen do similar work, the rate of the daily wage of these women must be ascertained.

(3) Finally, when there is no workshop where work connected with the clothing industry or similar work is done, either in the district under consideration or in similar districts, a case which, in view of the very large and comprehensive sense of the expressions "similar work" and "similar districts," will doubtless be rare, the rate of wages habitually paid to the women working by the day in the district must be ascertained.

In the terms of M. Jean Morel's report, "the woman working by the day taken here as the type is the unspecialised workwoman, who goes out

by the day to do various work in other people's houses : whether household work, sewing, washing or other work of similar character."

Establishment of the Minimum Wage. — It is in accordance with the rate of wages thus ascertained that the labour boards or wages committees fix the minimum contemplated in article 33*d*, that is to say the amount that piece prices must enable a woman of average skill working at home to earn in ten hours. The minimum wage thus fixed is thus a *time* wage ; it must be fixed per hour, or per day of ten hours.

The last paragraph of article 33*c* orders the labour boards or wages committees to proceed every three years to revise the minimum hourly wage.

Establishment of the Piece Price of Articles Manufactured in Series. — The committees of experts instituted by article 33*g* are called to draw up, as accurately as possible, a table of the time required for the manufacture of goods in series, for the various articles and the various classes of work-women, in the professions or districts coming within their province. In the intention of the law, for the purpose the work of a needlewoman of average ability must be observed in the workroom.

It must be observed that the action of the committees in selecting the articles to be shown in the table is not limited by the action of the Government. The arbitration boards and professional unions concerned have an equal right to address themselves to them. The committees may further, *ex officio*, enter the articles for which it seems to them especially advisable to fix the rates.

Once this table has been prepared, it is for the committee of experts, in order to establish the minimum wages and rates especially contemplated in article 33*h*, to calculate the amount of the minimum wage multiplied by the number of hours and fractions of hours shown in the table. The scale of rates must give in the case of each article three items of information : wage per hour, time required, net price per piece calculated from the two first.

Publication of Wages. — Article 33*h* entrusts the prefects with the care of ensuring the publication of the minimum wages and all piece wages or scales of rates ascertained or established by the labour boards and special committees. The law only provides for publication in the Collection of Departmental Administrative Acts. But it is the Government Regulations contemplated in the last paragraph of article 33*h* which shall exactly fix the conditions of such publication. It must be as complete and as speedy as possible, in order that all concerned may be informed in proper time.

Appeal against the Decisions of the Committees. — Article 33*h* provides for appeal against the decisions of the labour boards, wages committees or committees of experts, ascertaining or establishing wages or scales of rates ; such appeal may be made to the Central Committee at the Labour Office, the decision of which shall be final.

The Minister of Labour has to receive these protests and forward those to the Commission that are in order. The Government itself has a right to protest against manifestly erroneous conclusions of the commit-

tees and differences in their valuations of a kind to misrepresent the conditions of competition between different districts etc.

The wages and scales of rates fixed by decision of the Central Commission shall be given the same publicity as those ascertained or established by the Wages Committees or Committees of Experts.

§ 5. ADJUSTMENT OF SALARIES.

The fact that an employer does not respect the regulations in regard to the minima established by the committees does not render him liable to criminal prosecution ; it only exposes him to two different civil actions, which may be independent of each other, on the part of the employees injured and the associations authorized for the purpose, by decree issued on the proposal of the Minister of Labour.

§ 6. FORMALITIES WITH WHICH THE CONTRACTORS MUST COMPLY.

With the object of making it easy to ascertain the wages really paid by the contractors to the workwomen, the law imposes on the former certain obligations enumerated in articles 33*a*, 33*b*, and 33*c* under penalties laid down in article 99*a*.

In terms of article 33*a*, any manufacturer, commission agent or intermediary, who orders any of the work contemplated in article 33*a* to be done at home, must inform the inspector of labour in whose section is the head quarters of the business. The inspector acknowledges receipt of the information to the persons above mentioned.

The registers contemplated in the same article show the names and addresses of the women engaged in home work, by each manufacturer, commission agent or intermediary. Their form is not fixed in the regulations, but they are registers, that is they are bound, and do not consist of loose sheets. This point is essential for the purpose of checking the entries.

The piece prices paid for articles manufactured in series, which the employer (manufacturer, commission agent or intermediary) must publish, are, as has been shown above, the net piece prices, after deduction of the value of the material supplied to the workwomen. It is indeed necessary that it should be so for the sake of comparison with the net minimum prices fixed by the committees.

But it will be understood that, for the convenience of industrial business, the employers publish the gross piece prices, showing the amounts to be paid by them, and, by the side of these, with indication of the

material supplied to the needlewoman, the net piece prices resulting after deduction of the value of the material.

In regard to the counterfoil pass books delivered to the workwomen, the text of article 33c requires: the entry in them of the gross piece prices, the value of the material supplied and the net piece prices. The provisions of the law, however, are satisfied if the two first entries are distinctly made.

All these formalities and checks are necessary in order that the needlewoman may calculate her net wages, compare them with the minimum she has a right to, and, if need be, enforce her rights by means of a civil suit and also to permit of the associations concerned taking action; that is why the law secures their observance under penalty.

The law attaches great importance to the measures for the organization of the publication of wages. We have already spoken of the publicity contemplated in the case of wages and scales of rates ascertained or established by the committees. The publication of the contractors' and intermediaries' scales, that is to say, the posting of them in certain places laid down in article 33b is also of great importance. Not only does it facilitate comparison with the minima, but when the committees' scales do not include the same articles, the contractor will hesitate to post rates that are clearly too low; the prices posted will generally be the ordinary prices.

Exception has been taken to the obligation of the posting of series prices by the employer when the goods are delivered and collected at the workwoman's private residence. It was scarcely possible to order posting by the employer at the needlewoman's home. In this case the protection provided by the law evidently is reduced. It is for the labour inspectors to watch with so much the more care that the other provisions for supervision are complied with.

§ 7. RÔLE OF THE LABOUR INSPECTORS.

The labour inspectors are bound to see that the contractors comply with the formalities laid down in their case.

They have for their purpose means of control and powers they possess both by virtue of the new law and of the articles 105-107 of Book II of the Labour Code by which their general powers are regulated. They have the right of entrance in the offices of the home industry contractors, where the women wait, and in those where the material is consigned and the goods delivered after completion; they may claim to see the counterfoils of the tickets and the regular registers in which the entries on the tickets or in the passbooks delivered to the women must be accurately reproduced; finally, the reports they forward in proof of non-compliance with the legal provisions are accepted as evidence until proof to the contrary.

They must not wait to be complained to before exercising their supervision. Informed by means of the notice mentioned in article 33a of the names and addresses of the persons working at home, they must visit them to assure themselves that the provisions for the registration of needlewo-

men, the posting of the piece prices and the entries on the tickets, in the passbooks and registers as laid down in the law are complied with. They shall satisfy themselves that the net piece prices resulting from these entries are not inferior to those posted by the manufacturers, commission agents or intermediaries. They must, at the houses of a certain number of the needlewomen, satisfy themselves that the entries on the tickets and in the pass books delivered to the workwomen agree with those on the counterfoils and in the registers kept by the contractor. Their work of supervision is not ended when this agreement has been established; they must endeavour to assure themselves of the truth of these entries. If they discover inaccurate statements on the ticket or in the notebook in regard especially to the amount of work, the price per piece, the value and the kind of material left with the workwoman etc., they must prepare a report. However, before preparing their report they must explain to those concerned their duties, and, in the first few months, the reports shall only mention specially serious abuses and dishonest contraventions.

The strict duty of the labour inspectors is terminated when they have examined into the observance of the rules laid down for contractors for household industry. The text of the law does not charge them to see if the contractors respect the rules in regard to the minimum rates. Whilst variation from the prices posted which the employers promise, and disagreement with the counterfoil books consigned to the workwomen is considered as a kind of fraud entailing legal penalties, the law has made the non-payment of the minimum rate a matter for civil action to be brought by the injured party. It would be, however, interpreting the law after too narrow a fashion to limit the rôle of the labour inspectors to that of reporting agents. By means of the various formalities, the compliance with which the law enjoins on them to check, it has given them a practical means of comparing the prices actually paid with the minima prices. They will be led by force of circumstances to make this comparison and, in case of abuse, to remind the employers officially that they are acting irregularly and laying themselves open to legal action.

There is also one case in which the conclusions of the inspectors may have results at least of importance for administrations; namely, when the contractors are carrying out the orders of the Government, the departments, communes or public establishments. In that case, the labour inspectors must inform the Government of any infringements of the law they discover, so that it may inflict due punishment upon the contractors.

Finally, the labour inspectors must, if requested, assist the prefects and wages committees and committees of experts in the application of the other provisions of the law and especially the establishment of minimum wages. Their general experience in regard to work and the abundant information they have collected in recent times in regard to the wages habitually paid to women working at home in their districts will enable them to give reliable information to the prefects and committees asking for their collaboration.

GREAT BRITAIN AND IRELAND.

PROPOSALS FOR LAND REFORM IN WALES.

SOURCES :

WELSH LAND: RURAL. The Report of the Welsh Land Enquiry Committee. Hodder & Stoughton, London, 1914.

INTRODUCTION

In previous numbers of the *Bulletin* (1) we have reviewed the reports on rural conditions in England and Scotland, drawn up by the Land Enquiry Committees appointed by the Liberal Parliamentary Party. We will now examine the similar report for Wales drawn up by the sub-committee, under the chairmanship of Sir Alfred Mond, M. P., appointed in 1913 by a resolution of the Welsh Liberal Parliamentary Party to enquire into the conditions of land-tenure, housing, and agriculture in Wales.

One of the main sources of information drawn upon by the Committee was the Report, published in 1896, by the Royal Commission on Land in Wales, but besides availing itself of this monumental work and of the data scattered throughout numerous official publications, the Committee received a number of replies from informants and direct investigations were made by qualified persons. The report is drawn up in an impartial spirit, but, as we have reminded the reader in the case of those on England and Scotland already reviewed, it is the work of men belonging exclusively to one political party.

§ 1. INSECURITY OF TENURE.

As in the case of the similar reports for England and Scotland, the Committee considers that in Wales also insecurity of tenure is the main grievance of the farmer. The system of holding land on leasehold which formerly prevailed is now almost extinct in the Principality.

(1) Proposals for Land Reform in England and Wales. *Bulletin of Economic and Social Intelligence*, June, 1914. Proposals for Land Reform in Scotland. *Bulletin of Economic and Social Intelligence*, September, 1915.

The great bulk of the farmers occupy their holdings under yearly tenancies, terminable on six months notice. Thus there is great insecurity of tenure, accentuated by the large number of sales of estates which have taken place in recent years (in Wales and Monmouthshire about 30,000 acres of agricultural land changed ownership in 1912).

Under this system a tenant farmer is liable at any moment to find that the farm he rents has changed hands, and if he elects to remain on under the new landlord he is likely to be rented on the improvements he has executed without receiving any compensation for the same. If, to avoid dispossession, he decides to buy, he may be induced to bid up to a high price to retain his home, and the purchase price is often increased in consideration of the value of his own improvements. Thus insecurity of tenure prevents the farmer from improving the land as he otherwise would; it leaves him open to an arbitrary demand for higher rents; it denies him security for credit; and it forces him to employ less labour and consequently to increase the ever growing migration to the towns.

It is claimed that as a result agriculture is in a very backward state in Wales, the yield of the crops being considerably less than in England and Scotland.

One of the results of insecurity of tenure is to render ineffective much of the legislation enacted for the protection of the tenant farmer. For instance, in spite of the Act passed in 1908 entitling him to compensation for damage from game, the tenant farmer is seldom if ever fully compensated for such loss because he is generally afraid to enforce his legal rights.

§ 2. FAILURE OF EXISTING LEGISLATION.

Theoretically the Agricultural Holdings Act of 1908 has put the tenant farmer in a better position. On paper he gets: (a) compensation for improvements; (b) compensation for unreasonable disturbance; (c) compensation for damage done by game; (d) extension of notice to quit to twelve months; (e) a record of the state of the holding at the commencement of the tenancy; (f) freedom of cropping and freedom to dispose of the produce as he thinks fit, always provided that in the exercise of these statutory rights he does not injure or deteriorate the holding.

Yet, notwithstanding every provision in the act, nothing has been done to deprive the landowner of the power to remove a tenant without giving any reason for his action; nor is there any provision to protect the sitting tenant against being compelled to pay an increased rental on his own improvements. If he wants to get compensation for such improvements the only way is for him to quit his farm.

To summarise, existing legislation does not provide adequate security of tenure for the tenant farmer. It does not protect him against having to pay increased rent on his own improvements. It does not provide machinery by which a fair rent can be fixed impartially. It does not provide com-

pensation for improvements or for unreasonable disturbance, or for disturbance in case of the sale of the holding.

§ 3. THE PROPOSED REMEDY.

In considering purchase as a possible remedy for this condition the results of the evidence submitted to the Committee may be summarised as follows:

(1) There is no evidence of a general desire or organised movement in favour of purchasing holdings under conditions at present existing.

(2) The Welsh farmers show a strong desire to purchase their holdings when put up for sale.

(3) The desire to purchase only arises as an alternative to being turned out of the holding.

(4) The majority of Welsh farmers are without the capital necessary to pay the purchase price.

On this question of purchase the Report states: "Having regard to the economic condition of the Welsh tenant farmer we would hesitate very much to advocate a general scheme of purchase which would result in a further decrease of the capital available for working the farm..... It is a common observation that tenants who have purchased without capital have taken too great a burden on themselves and are worse off than they were when tenants of large estates".

The remedy which commends itself to the Committee is that a tenant farmer be given absolute fixity of tenure with an independent tribunal or land-court to settle the following points, failing agreement between landlord and tenant: (1) amount of rent; (2) valuation of improvements made by the tenant; (3) whether the landlord has provided the proper equipment for the holding; (4) compensation for damage done by game including rabbits; (5) grounds on which a tenant may be ejected; (6) claims by landlord or tenant at the expiration of the tenancy.

Precedents for the establishment of such a land-court are afforded by the Irish Land Commission and the Scottish Land-Court.

§ 4. OCCUPYING OWNERS.

This class, although numerically small as compared to tenants, is of especial importance in Wales, where, much more than in England or Scotland, tenants incline to purchase their farms. This tendency is due to the insecurity of tenure and consequent fear of eviction from their old homes. The evidence given before the Royal Commission on Land in Wales showed that the condition of these small freeholders was in the majority of cases precarious, mainly because they had to purchase their hold-

ings to 'save their homes at a price which was often extravagant. Having little or no capital they have had to find the money on mortgage, for which they have had to pay heavy legal costs and a high rate of interest. Moreover, the mortgages are frequently called in, entailing further legal costs in obtaining a fresh mortgage and a transfer of the old one. There is, however, an undoubted consensus of opinion that farming is better done by the freeholder than by the tenant; and many of the small occupying owners have tided over their difficulties and are now doing well.

The great majority of freeholders in Wales are of very recent origin. The statistical data for 1894 showed that the proportion of land thus occupied in Wales was 11.8 per cent. as compared to 14.9 per cent. in England and 12.4 per cent. in Scotland, while in 1912 it had declined to 9.91 per cent. in Wales and to 10.9 per cent. in England. As a rule the capital for the purchase of these farms is provided by a mortgage given on the farm itself, and the Committee reports that the usual rate of interest ranges from $3\frac{3}{4}$ to 4 per cent. This is considered too heavy a burden on the farm, and moreover the constant calling in of mortgages, which must exist when the mortgagee is a private individual, involves heavy costs which often compel the freeholder to sell out his holding. The remedy usually suggested is some form of State loan. A large number of witnesses before the Welsh Land Commission recommended the Government to advance money on mortgage at a low rate of interest, to include an amortisation fund.

The Welsh Land Commission itself recommended advances not to exceed £. 3,000 on farms of not more than 150 acres, purchased since January, 1868; such advances not to exceed three-fourths of the present value of the land, at a rate of interest of $2\frac{3}{4}$ per cent. per annum, plus $\frac{1}{4}$ per cent. for management expenses and fire insurance. The mortgage to be redeemable at choice in 30, 40 or 60 years, with provision enabling the borrower to repay the whole or any part of the loan at any time with the prescribed notice, a sum of five million sterling to be devoted for this purpose.

§ 5. RURAL DEPOPULATION AND THE AGRICULTURAL LABOURER.

The census statistics show that since 1841 the rural population of Wales has steadily declined, though in the last few years there seem to be indications of an arrest in the rural exodus. One of the main causes of depopulation has been the change from arable farming to pasture; and of late years it is to be found in the higher wages offered in the towns and colliery districts. Inadequate housing and a dearth of cottages are also given as contributory causes.

In considering the status of the agricultural labourer the Committee points out that in Wales no hard and fast line can be drawn between the labouring and the farming classes, which merge into each other, while the smallness of the farms prevents the specialisation of labour. The avail-

able supply of agricultural labour is constantly declining, having fallen from 72,745 in 1851 to 43,818 in 1891 and to 38,402 in 1911. This has led to the employment of much inefficient labour provided by boys whom the farmers take from the industrial schools of England and this in turn accounts in part for the backward condition of Welsh agriculture. Low wages, insufficient and defective cottages, lack of prospects and opportunity for improvement are given in the Report as the main reasons for this falling off in the labour supply.

The following table from the census returns for 1911 shows the current rates of wages.

Earnings	Nº of Labourers of 20 years of age and upwards	Percentage of total
18s. and under 19s. per week.	7,497	27.4
14s. and under £1 per week	11,801	43.2
£1 and over per week	8,040	29.4
Total	27,338	100.0

A similar table for England shows that over 60 per cent. of all agricultural labourers in that country are in receipt of less than 18s. a week. Thus it will be seen that the wages question is much graver in England than in Wales.

The Report considers that there is every probability that economic causes, the increased prosperity of agriculture, improved conditions of tenure, and combined action on the part of the labourers, will tend to raise the general level of wages in Wales. Still, there will remain a residuum of agricultural labour unaffected immediately by these causes, and it is to this residuum that statesmen will have to turn their attention. Cabinet Ministers in 1913, when outlining the future policy of the then Liberal government with regard to land reform, spoke of the need of establishing a « minimum wage » for the farm labourer ; and the same policy was then advocated by a group of Unionist members of Parliament in a pamphlet entitled "A Unionist Agricultural Policy", as well as by the Parliamentary Labour Party. These proposals which applied equally to Wales and to England, were set forth in the article on the Report of the Land Enquiry Committee for England in the *Bulletin* of June 1914.

The Report we are now considering expresses the opinion that such a minimum wage would do little to stem the tide of rural migration in Wales, and places more reliance on a policy of better housing and greater facilities for the labourer to secure land for himself.

§ 6. SMALL HOLDINGS.

The annual Reports of the Board of Agriculture show that the Welsh County Councils have been far less active than the English in providing small holdings under the Act of 1908, fully described in the *Bulletin* for March, 1911.

The total number of holdings held in Wales and Monmouthshire under the Act, as given in the report of the Board of Agriculture for 1913, is 801, an average of 61 for each county as compared to 205 for each county in England. Only 7 of these holdings have been sold to the occupiers, showing that very little use has been made of the purchase provisions of the Act.

Enquiries made by the Committee showed that the failure of the Act to do what was expected of it in satisfying the demand of the labourer for land is largely attributable to the difficulty experienced in buying or renting land at a reasonable price for small holdings, owing to the hostility of the landlords and large farmers. The difficulty is increased by the fact that most of the applicants desire holdings in the immediate neighbourhood of their homes.

As a remedy to these drawbacks the Committee suggests that the value of land compulsorily acquired under the Act should be settled by a Land-Court and that the basis of compensation should be the price which might be expected if the property were sold at the time, in its then condition, in the open market, by a willing seller.

§ 7. CO-OPERATION.

An important chapter of the Report is devoted to the subject of co-operation. As a country of small farmers and of mixed farming Wales offers a splendid field for co-operation, yet the movement initiated there in 1902 is still in its infancy.

The few co-operative societies confine themselves to the comparatively easy business of buying farm requisites. They make no effort to market farm products, though it is in collecting, grading, transporting, and selling produce that the farmer has most to lose, and loses most.

The following figures from the summary for 1912 (the latest available on agricultural co-operative societies registered under the Industrial and Provident Societies Acts) show how undeveloped is this all-important phase of co-operation.

Societies for purchase of requirements	54
Egg, poultry, dairy and other distributing societies . .	5

The estimated membership of the Welsh co-operative societies in 1911 was 31,021, and their estimated aggregate turn over £. 1,133,083. This is only a fraction of the business which they should do if the movement were once properly developed.

The Report concludes that the two main obstacles in the way of co-operation in Wales are lack of education in co-operative methods and the prevalence of the credit system of purchase.

Enquiries made by the Committee showed that the establishment of a rational system of co-operative credit to enable the farmers to meet their liabilities promptly would be a most useful step toward improving agricultural conditions and promoting the development of co-operative buying and selling.

The pressing need is to free the farmer from the shackles of the credit system ; for until that is done he cannot, much as he may wish it, take full advantage of co-operation.

The Report points out that on January 1st, 1913, there were 16,927 sound, flourishing co-operative credit societies in the German Empire. On the same date Wales had none of any importance, and in their stead had the money-lender, the bank charging not less than 5 per cent., the credit auction with inflated prices, and credit from shop-keepers, auctioneers, cattle-dealers, etc. on terms that often compelled the farmer to sell only to the creditor.

Continuing under this head, the Committee points out that the fostering and extension of co-operation and the provision of credit facilities are two vastly important factors in any scheme of land reform, and confidently recommends the establishment of State Land Banks on the model of those which have been tried with conspicuous success in Australia. It must not be thought that the Committee, in recommending such banks, is hostile to co-operative credit associations. On the contrary, it heartily endorses Mr. Robert Mond's recommendations that the formation of co-operative credit banks be assisted by making debts owing to such associations a first charge on the property involved, by providing small sums towards the expense of establishing Credit Associations, by encouraging the investment of certain State funds, such as Savings Bank funds in such societies, and by the provision of free audit.

§ 8. CONCLUSIONS AND RECOMMENDATIONS.

As the result of its investigations the Committee concludes that agriculture in Wales is in a backward condition, due largely to insecurity of tenure which makes farmers reluctant to spend money in improving their holdings and renders it difficult for them to obtain credit.

High rents, apprehension of increased rent on the tenant's improvements, onerous conditions of tenancy agreements, all tend to depress agriculture.

The Committee considers that nothing short of absolute security of tenure, subject to certain reservations, will meet the needs of the case.

Proposals for State aided purchase of holdings have been brought forward, but the Committee deems that before such proposals are discussed the immediate necessity of the tenant farmer is security of tenure, so that he may freely put his best into the cultivation of the soil without hampering himself by locking up his capital in the ownership of raw material.

To ensure such security of tenure the Committee recommends that provisions similar to those of the Small Landholders (Scotland) Act be embodied in a Land Act for Wales. This would ensure the establishment of a Land-Court to which the Committee advocates that the following powers be entrusted in the absence of agreement between landlord and tenant:

(a) to determine the conditions of tenancy including the period of renewal; (b) to fix an equitable rent; (c) to decide whether the landlord has reasonable grounds of objection to the tenant; (d) to value the tenant's improvements; (e) to determine the amount of compensation for damage done by game; (f) to determine whether the landlord has failed to provide and maintain buildings, etc.; (g) to decide whether the landlord may resume possession of the holding for non-fulfilment by the tenant of the covenants in the tenancy agreement or for purposes to be defined in a Land Act.

As to the question of administration, the Committee is of opinion that Welsh agriculture presents problems so essentially different from that of England that the fullest benefit from legislation on the lines indicated could only be secured by the establishment of an independent and sufficiently endowed Board of Agriculture located in Wales and empowered to deal with Welsh agricultural matters. Precedent for such action exists in the Board of Agriculture for Ireland and in that for Scotland.

Those who have read the articles on the Land Enquiry Reports for England and Scotland, already published in the *Bulletin*, will see that while conditions vary widely in the three countries, the reports agree in their recommendations on certain essential points.

In all three cases the Committees insist on the need of full security of tenure and increased facilities for securing small holdings for the tenant farmer as being the most important steps towards stemming the rural exodus and improving agricultural conditions.

All three reports also incline to prefer security of tenure under the protection of a Land-Court to State-aided or other forms of purchase by the tenant, as advocated by prominent reformers of the Unionist party, on the ground that the farmer can employ his capital more profitably in farming operations than by locking it up in the ownership of the land.

The need for credit facilities, and the advisability that these be developed along co-operative lines is another point on which all three reports agree, and there is a consensus of opinion that if small holdings

are to be developed to economic advantage, co-operative methods, more especially in the marketing of produce, must be assiduously developed and promoted by education and by the provision of credit facilities.

For the time being all these proposals, which in the early months of 1914 loomed large on the political horizon in Great Britain, are in abeyance, but there is little doubt that with the return of normal conditions they will again be among the foremost problems to claim the attention of the statesman.

ITALY.

AGRICULTURAL STRIKES ACCORDING TO RECENT OFFICIAL STATISTICS.

OFFICIAL SOURCES :

STATISTICA DEGLI SCIOPERI AVVENUTI IN ITALIA NEGLI ANNI 1908 E 1909. (*Statistics of strikes in Italy in the Years 1908 and 1909*). Department of Agriculture, Industry and Commerce. General Division of Statistics and Labour, Labour Office, Rome 1915.

ANNUARIO STATISTICO ITALIANO (*Italian Statistical Yearbook*), Second series, Vol. III, 1913. Department of Agriculture, Industry and Commerce. General Division of Statistics and Labour, Rome, 1914.

BOLLETTINO DELL'UFFICIO DEL LAVORO (*Bulletin of Labour Office*) published by the Department of Agriculture, Industry and Commerce.

In our Bulletin of April, 1914, when treating of associations of employers, we observed that these had arisen in Italy with the object of opposing resistance to the frequently excessive demands of the labour leagues for better terms and higher wages. These associations have become widely spread, because of the increase of agricultural strikes in recent years. The report of an enquiry relative to the years 1908 and 1909 recently published by the Labour Office, gives us interesting information on agricultural strikes in Italy, enabling us by the abundance of particulars afforded, closely to examine these important questions of economic life.

§ 1. SOURCES OF NOTICES AND DATA AND THE ECONOMIC PHENOMENA CONSIDERED AS STRIKES.

The above mentioned inquiry was concerned with both industrial and agricultural strikes. To the consideration of these latter we now confine ourselves. As stated in the introduction to the report, the notices collected were drawn from the following sources :

(a) from manufacturers and proprietors affected by strikes ; and when many undertakings or firms were affected, if it was not possible to obtain information from all, recourse was had to those who were the most pro-

minent either on account of the extent of their undertakings or the leading part they had performed in the negotiations and in resistance to the strikes.

(b) from strikers, and when there was no organisation, especially in small rural communes, from those who through natural capacity or from having taken part in the strike could give information; frequently also from the ordinary correspondents of the Labour Office, and in the case of agricultural strikes, from the local leagues. When it was not possible to obtain information directly from the persons concerned, the Office reverted to the prefects, who in every case are bound to send answers to a schedule of questions which serve as a useful check and supplement to the notices furnished by the interested parties. Economic phenomena having the following characteristics were considered as strikes:

(a) Demands for the improvement of the conditions of labour made immediately to the proprietors or manufacturers by whom the strikers were employed; (by "conditions of labour" are understood those concerning labour contracts, tacit or expressed).

(b) Abstention from work by employees. No difference is made between work already begun and work to be undertaken, provided the necessity of this latter was evident and at a date at least approximately determinable. Nor is the duration of a strike, for a minimum period, nor a minimum number of workmen abstaining from work, nor a minimum duration of their abstention laid down as essential for the existence of a strike. Strikes are considered as such in the statistical tables even if they lasted only one day or less.

A strike, though affecting more undertakings and businesses than one, is considered as a single strike, when, while the object is the same and the date approximately so, there is solidarity not only among the strikers but also among the employers, so that the result may be attributed to the total pressure exercised by the united abstention from work. In agricultural strikes, since it is difficult to ascertain the extension beyond the confines of a single commune, the limits of the commune are almost always considered as those of the extension of the strike.

§ 2. GEOGRAPHICAL DISTRIBUTION AND CLASSIFICATION OF AGRICULTURAL STRIKES.

We shall now consider in a special manner the agricultural strikes of 1908 (one of the years to which the enquiry was directed). We shall subjoin an interesting table showing the number of agricultural strikes and strikers from 1881 to 1913.

In 1908 there were in Italy 286 agricultural strikes with 173,425 strikers. The greater number of strikes (112) were among day labourers, the number of strikers being 56,686.

The highest number of these strikes was reported from Emilia (28 with 12,671 strikers). Especially important both for number and extent were

those in the provinces of Bologna (11 with 4,955 strikers), Ferrara (7 with 4,495 strikers) and Ravenna (5 with 2,400).

Lombardy came next (23 with 7,037 strikers), among which Mantua held the first place (13 with 5,023 strikers, chiefly engaged in the cleaning of rice) and then Pavia (8 with 1,974) especially in Lomellina. In Venetia there were 16 with 3,081 strikers, and in Piedmont 15 with 8,460. Fewer strikes (12) but with a much larger number of strikers (20,870) occurred among the day labourers of Apulia. Finally, if we except Rome, with six strikes and 2,650 strikers, the remaining strikes of day labourers were of little importance. In Tuscany there were 3 strikes with 248 strikers, in Umbria there were 3 with 818 strikers, in Sicily 3 with 761 and in Liguria 1 with 90.

Little less numerous (109), but with a greater number of strikers (83,409) were the strikes of day labourers united with those bound by contract. Of these there were in Emilia 45 with 22,264 strikers, the greater part being in the provinces of Parma (19 with 13,856), Piacenza (15 with 7,701) and Ferrara (9 with 515). In Lombardy there were 29 with 14,954 strikers. Venetia follows with 21 and 15,406 strikers. Apulia shows a smaller number (11) but with a larger number of strikers than any other region (29,185); Foggia alone showing 8 strikes with 19,980 strikers and Bari 2 with 9,040. These strikes occurred generally during the reaping season. There were 3 strikes with 1,600 strikers in Piedmont (Vercelli).

A much smaller number (23) than those already mentioned among the agricultural classes take place among metayers and contract labourers, with this difference that the number of metayers striking (12,190) was more than four times that of the contract labourers (3,005).

The highest number of strikes among metayers (19 with 3,817) is reported from Lombardy.

Strikes among contract labourers alone were likewise most numerous in Lombardy (10 with 772 strikers). Venetia came next (4 with 426), then Apulia, Campania and Emilia with three strikes each.

In the strikes in Emilia among day labourers, metayers and contract labourers, though but ten in number, large numbers of strikers (12,780) took part. These occurred more especially in the provinces of Parma (5 with 5,808) and Piacenza (5 with 5,760).

The same remarks may be made in regard to the strikes of metayers united with day labourers (9 with 5,355).

The following table shows the geographical distribution of agricultural strikes in Italy.

TABLE I. — *Distribution of Agricultural Strikes according to Region.*

Regions	Strikes	Strikers	Percentage of	
			Strikes	Strikers
Piedmont	18	10,060	6.29	5.80
Liguria	2	190	0.70	0.11
Lombardy.	85	27,565	29.72	15.90
Venetia.	41	18,913	14.33	10.90
Emilia	92	59,587	32.17	34.36
Tuscany	5	248	1.75	0.14
Umbria.	4	1,488	1.40	0.86
Rome	6	2,650	2.09	1.53
Campania	3	370	1.05	0.21
Apulia	26	51,320	9.10	29.59
Sicily.	4	1,034	1.40	0.60
Total . . .	286	173,425	100.00	100.00

By this table we see that half of the strikes take place in North Italy (51.04 %) ; about two fifths (37.41 %) in Central Italy and little more than one-tenth (11.55 %) in Southern and Insular Italy. The distribution of the strikers seems much more uniform : Central Italy 36.89 %, Northern Italy 32.71 %, Southern and Insular Italy 30.40 %.

§ 3. DISTRIBUTION OF STRIKES ACCORDING TO MONTHS AND CROPS.

The month in which strikes are most frequent is May : in this month 105 (36.72 per cent) have occurred, due for the most part to the great movements which took place in the provinces of Parma (23), Piacenza (20), Foggia (12) and Vercelli (11). Next comes June with 61 strikes (21.33 per cent). In the other months except February with 36 strikes (12.59 per cent), they are much more rare. In fact, from 20 strikes in March (6.99 per cent) the number descends to 15 in April (5.24 per cent), to 12 in January (4.19 per cent), 10 in July (3.50 per cent), 6 in August and November (2.11 per cent), down to a minimum of 5 in September, October and December (1.74 per cent).

The distribution of strikers shows analogous features. In this case also, May takes first place (80,047 strikers, that is 46.16 per cent) showing an even greater excess over all the other months, and including almost half

the number of strikers for the whole year. June again takes the second place with 40,652 strikers (23.44 per cent) and March comes third with 17,861 strikers (10.29 per cent). The other months follow at irregular distances.

As to crops we find that that which has suffered from the greatest number of strikes (58) and of strikers (49,769) is wheat; rice suffered in the next degree by 33 strikes (16,015 strikers), and lastly vineyards by 27 strikes (19,409 strikers). Of the 58 strikes and 49,769 strikers, connected, as has been just stated, with the cultivation of grain, more than two-thirds of the strikes, (41) in which nine-tenths of the strikers (45,544) took part, occurred at harvest. There were thirteen strikes with 3,311 strikers during the time of threshing, two strikes with 480 strikers during the cleaning of the grain and two during the sowing.

During the mowing and gathering in of the hay crops and other cattle foods there were 14 strikes in which 4,866 strikers took part. In connection with olive cultivation there were 6 strikes with 1,853 strikers, with that of citrus plants three strikes with 761 strikers, with that of maize 6 with 1,443 strikers, and with hemp-growing 10 strikes with 973 strikers etc.

Lastly, in 31 strikes with 21,746 strikers all agricultural work was entirely suspended, and the livestock abandoned.

§ 4. RESULTS AND DURATION OF STRIKES.

As to the results of the strikes, in proportion to their number, it is found that in many cases they are unfavourable to the workmen (23.08 %); an almost equal percentage (17.13 %) are slightly favourable; those on the whole favourable to the labourers or equally favourable to both sides form 16.08 %; finally, omitting those strikes of which the result is unknown (a percentage of 14.35), those of which the results are completely favourable amount to 13.28 % of the whole number of strikes.

When we consider the number of strikers, we find slightly favourable results decidedly predominate (28.49 %); next come the unfavourable results in almost the same proportion as above or 23.68 %; we observe a slightly larger number of results on the whole favourable (17.48 %); with on the other hand a slightly smaller number of cases of strikes the results of which were equally favourable to both sides (12.03 %) and we find a considerably smaller proportion completely favourable (4.62 %). The percentage in the case of strikes of which the results are uncertain remains almost the same as above (13.70 %).

The duration of the greater number of strikes is more than one day and less than six (30.42 %), or from six to ten days (26.92 %). Cases of longer duration are less frequent: from eleven to twenty days (11.89 %) from twenty one to thirty (3.50 %) from thirty one to fifty (1.75 %). The percentage increases perceptibly in cases of duration of more than fifty days (10.14 %). The percentage of strikes lasting only one day or less is 7.34 % and that of those of unknown duration 8.04 %.

Similar proportions have been observed as regards the numbers of strikers when the duration of the strike is from six to ten days, (30.71 %) and of more than one day and less than six (28.67 %); then come the cases of those which last from eleven to twenty days (11.85 %), from twentyone to thirty (1.72 %), from thirty-one to fifty (1.15 %). The percentage of strikers where the strike lasts more than fifty days is remarkable (17.40). But where the strike lasts only one day or less the percentage is small (2.23 %) and likewise in the case of strikes of unknown duration (6.27 %).

§ 5. EXAMINATION OF THE DEMANDS OF THE STRIKERS.

It is especially interesting to consider the demands made by strikers. In all 977 demands were made in regard to the monopoly of labour, wages, hours, share in produce, additional pay, difficulty or danger of the work. Let us consider these individually :

(a) *Monopoly of labour*. This class, the most numerous and varied, includes 307 demands, 38 of which require the establishment of a registry office ; to 17 of these an unfavourable reply was given, to 14 a completely favourable reply, 2 received an answer on the whole favourable, in 1 case the applicants received half of what was asked and in 1 only a very small part ; in three cases the result is unknown.

For the recognition of an organisation 32 demands were made ; for joint and several liability 25, for the exclusion of unorganised labourers, 23.

For the abolition or limitation of the use of machines 17 demands were made, 15 of which were refused. There were 15 demands for the appointment of a commission of arbitration, to all of which an entirely favourable answer was given ; 14 for labour shifts and 14 for continuity of labour ; 13 for the right to organise and to strike, 9 of which received a completely favourable answer, 3 an answer on the whole favourable, and in one case the answer is unknown) ; 13 requested a holiday on May 1st., which was granted in almost every case.

Demands of other kinds are less numerous ; their object is generally to obtain for labourers the exclusive right to work as metayers, the prohibition of exchange of labourers ; exemption of the metayer from the duty of doing certain work for the land owner, or payment or increased payment for such work ; preference to be given to local labourers ; the exclusion of foreign labourers.

(b) *Wages*. Demands in regard to this are more numerous (283) than any others except those regarding the monopoly of labour . Of these more than two-thirds (199) are for increase of wages. The answer given was favourable in 50 cases, unfavourable in 37 ; an answer half satisfactory was given in 35 cases, one favourable in a very small degree in 34, and one favourable on the whole in 27 : the answer received in 16 cases is unknown. The next numerous class of demands is much lower, namely twenty-five made for equalisation of wages and thirteen for an increase of payment in kind to labourers bound by contract. There were besides eight demands

for payment by the hour, and eight for an increase of wages according to an annual tariff. There were six demands for payment of wages in money instead of in kind, five for the observance of a tariff, four that wages should not be reduced, three that wages should not be forfeited on account of unfavourable weather, two for payment by the day instead of by the job etc.

(c) *Hours of work.* In regard to this matter, 177 demands were made, of which more than three-fourths (140) were for a reduction of the number of hours. The result was on the whole unfavourable in 59 cases; the completely or slightly favourable replies were 28 in number. For a fixed time table a far smaller number of demands were made, that is to say 14, eight of which received a favourable answer. In eight strikes a demand was made for one holiday a week and in six cases granted. Four demands were made that the time spent in going to work should be included in the hours of work.

(d) *Share in the profits.* In regard to this, 108 demands were made. Thirty concerned the increase of the shares in the profits and twenty-two, more than two-thirds of these, received entirely favourable answers. Twenty-one demands were for reduction of or exemption from expenses and in twelve cases the result was favourable. Next in order of frequency come seventeen demands for fixing or reducing payments in kind and largesse, fifteen for reduction of rent, and ten for a uniform system of metayers' contracts. These last were all granted. Other less numerous demands were presented for improvements in metayers' contracts generally, for the regular keeping of accounts between landlord and tenant, and the grant or better distribution of water for irrigation purposes.

(e) *Additions to wages.* There were 89 demands made in regard to this. Of these 22 concerned the revision of the rents of houses inhabited by labourers in Parma receiving food and lodging. All of these were rejected. Next come eighteen for insurance against accidents, ten of which received completely favourable answers; fifteen for assistance in case of illness, thirteen of which were granted, and nine for higher payment for overtime and for work done on holidays, etc.

(f) *Danger and difficulty of labour.* In regard to this the demands were neither so numerous nor so varied. There were indeed only thirteen, of which twelve were for limitation of work and one for exemption from labour outside the labourers' duties.

About half of the whole number of demands (460 or 47.1 %) were presented in Lombardy, 188 (19.2 %) in Emilia, 154 (15.8 %) in Venetia, 91 (9.3 %) in Apulia, 27 (2.8 %) in Piedmont and 22 in Rome. In other parts of the Kingdom there were few demands regarding wages and hours.

§ 6. THE NUMBER OF STRIKES OF AGRICULTURAL CHARACTER FROM 1881 TO 1913 AND THE NUMBER OF STRIKERS.

Lastly, to give an idea of the frequency and intensity of strikes in Italy, we have reproduced from the above-mentioned statistical report

the following table showing the numbers of agricultural strikes and strikers from 1881 to 1913. But it must be remembered that the data referring to the years from 1910 to 1913 have been reproduced from the *Annuario Statistico Italiano* (Second Series, Vol. III) because the above-mentioned table contained figures only up to 1909, and the figures for 1913 are only provisional.

TABLE II. — *Number of Agricultural Strikes and Strikers from 1881 to 1913.*

Year	Number of Strikes	Number of Strikers	Year	Number of Strikes	Number of Strikers
1881	1	100	1898	36	8,495
1882	2	2,200	1899	9	1,895
1883	3	262	1900	27	12,517
1884	10	245	1901	629	222,683
1885	62	8,857	1902	222	146,706
1886	17	3,846	1903	47	22,507
1887	9	2,275	1904	208	94,756
1888	5	1,366	1905	87	43,695
1889	4	1,087	1906	342	117,065
1890	8	1,950	1907	377	254,131
1891	24	7,795	1908	286	173,425
1892	10	3,504	1909	132	46,569
1893	18	12,390	1910	97	25,805
1894	8	4,748	1911	148	132,738
1895	7	1,765	1912	176	95,841
1896	1	100	1913	94	85,000
1897	12	24,135	—	—	—

This table shows that the strikes which in 1907 reached a maximum both as regards frequency and number of strikers (377 strikes and 254,131 strikers), began to diminish in number in 1908, though still numerous and extensive, and in 1909 showed a very remarkable decrease. In 1908 there were 286 agricultural strikes and 173,425 strikers and in 1909 these figures fell respectively to 132 and 46,569. In 1910 the decrease was accentuated, but in 1911 and 1912 there was a sudden increase in the number of strikes, which rose from 97 to 148 and 176. But in 1913 there was again a decrease, the number of strikes falling to 94.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

UNITED STATES.

I.—THE PROPOSED FEDERAL CONTROL OF PUBLIC GRAZING LANDS.—From time to time during the past ten years bills have been introduced in Congress for the purpose of regulating grazing rights over the unalienated public lands of the United States. The most recent bill, introduced in 1914 by Representative William Kent of California, met with the approval of most of the persons and associations interested in the question. In brief, the Kent bill (which did not succeed in passing Congress) provided for the creation of grazing districts by proclamation, and for the issue of grazing permits or licences upon the payment of certain fees. Twenty-five per cent. of the receipts from fees was to be paid over to the authorities of the district within which the lands leased were situated to be devoted to the development of the public schools and the construction of roads. In issuing permits the claims of the actual occupants of the land were to be given priority. Local committees upon which the various interests in the land were represented were to act in co-operation with officers appointed by Government in dividing the land available between the different kinds of stock and determining the number of animals that could profitably be grazed.

The need for apportioning the land between the rival interests of sheep-breeders and cattlemen is clearly recognised. Where sheep and cattle are grazed upon the same range there is constant friction, and sometimes actual fighting and bloodshed, between the men employed in tending the flocks and herds. Moreover, the present system of unrestricted right of pasture over unappropriated public lands is admittedly wasteful and is leading more or less rapidly to the destruction of what ought to be the permanent grazing value of the land. Under a system of wise regulation the perpetuation of the valuable range grasses could be secured, encouragement would be given to the development of water supplies upon which the value of grazing ranges so largely depends, unused areas would be opened up, and it would be made profitable to devote attention to improvements in breeding.

The importance of the question of developing the national grazing areas is easily realised. The public grazing lands of the United States, situated almost wholly in the States of Arizona, California, Colorado, Idaho,

Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington and Wyoming, occupy some 280,000,000 acres, or nearly one-sixth of the area of the United States, excluding Alaska. On this public domain are grazed no less than 16,000,000 head of sheep, 4,000,000 head of cattle and 1,000,000 horses. The high cost of living, and in particular the high price of meat, is already attracting attention, and if the public grazing lands are exploited instead of being wisely used and carefully conserved, the cost of living will undoubtedly continue to rise. It is calculated that under a system of intelligent regulation the number of sheep and cattle which could be supported on the public ranges might be increased no less than fifty per cent., and an increase in supply of these dimensions ought to have an appreciable effect on the cost of meat.

This estimate of an increase of fifty per cent. in the stock-carrying capacity of the public lands under regulation is made by Mr. Dwight B. Heard, President of the American National Live Stock Association, in an article in the *American Review of Reviews* for September, 1915, and Mr. Heard supports his opinion by referring to the results of federal control of the grazing in the National Forests. Some twelve years ago the grazing in the forests was placed under the administration of the Forest Service which upon taking charge instituted a system of grazing licences issued upon the payment of reasonable fee. The system of regulation met at the time of its introduction with the most violent opposition from the cattlemen who had had till then free use of the forest ranges, but to-day after experience of the working of the system the same men are practically unanimous in preferring regulation, while the number of head of stock grazed has increased almost fifty per cent.

The experience of the state of Texas has been very similar. The grazing lands there have been allotted under a system of leases and now support fifty per cent. more cattle than in the old days of free and unlimited grazing, constant disputes, occasional murder, and rapid destruction of valuable pasture land.

One bill introduced in the same session of Congress as the Kent bill succeeded in passing the House. It was introduced by Mr. Ferguson of New Mexico and is generally referred to as the Ferguson Grazing Homestead bill. It provides for the acquiring of grazing homesteads of 640 acres within areas specially designated by the Secretary of the Interior, no area being designated for settlement unless the land is of such a kind that 640 acres of it will support a family in reasonable comfort.

It is anticipated that in certain parts of the West a considerable number of such homesteads will be selected, but the area settled in this way will in any case be but a small proportion of the total area of grazing land still unalienated.

2. — DIRECTOR OF MARKETS APPOINTED IN IDAHO. — Following the example of the federal Government, several of the states have proceeded to

establish a new division of their State Department of Agriculture to be known under the name of the "Office of Markets" or under some name closely corresponding. North Carolina has had an office of this kind conducting investigations for some time past; Texas, in 1913, granted an appropriation of \$15,000 for the purpose of Collecting information on marketing methods; Idaho has quite recently (in the session of 1915) passed an act establishing an "Office of Director of Markets."

The Director is to be appointed by the Governor and is to hold office for two years at a salary of \$2,500 a year. Presumably his continuance in office depends upon his reappointment at two year intervals so that he has little in the way of security of tenure.

His duties as laid down by the Legislature are "to promote, in the interest of the public, economical and efficient production of all farm products." The real problem upon which he has to work is that of marketing farm products, and this problem in itself is sufficient to occupy the whole of any one man's time and energy. It is rather unfortunate, therefore, that a very wide scheme of work has been outlined for performance, and a writer in the *American Economic Review* for September (Mr. A. W. Taylor, Washington State College) would seem to have good grounds for his opinion when he says that among the many lines of work which the Director is instructed to undertake "little of definite value can be expected that will shed light on the main problem, that of marketing farm crops."

The Director is authorized to establish a service for the dissemination of news regarding crops, freight rates and the charges of commission dealers. He has to investigate the transactions of middlemen and prevent fraud. He is expected to promote rural betterment and, so far as lies in his power, to provide equality of opportunity for all farmers in Idaho. He has further to fulfil the duties of an immigration agent, assisting settlers to make a wise selection of land, protecting them from unscrupulous land agents and prosecuting in cases of misrepresentation or fraud in the sale or transfer of real estate. His office is to act as a farm labour exchange and is authorized also to register lands for sale, charging a fee of one dollar for registration and a commission of one per cent. upon sales effected.

Mr. Taylor comments upon the duties imposed upon the Director as follows,—"Much as all these phases of agriculture need attention, it should be evident to anyone who considers the matter seriously that one official can not attend to duties so varied as those enumerated and do justice to them."

The marketing problem in the Northwestern states is a serious one and it has been aggravated in the case of Idaho by real estate booms during which many settlers paid inflated prices for land, especially for irrigated land. Agricultural production has been largely increased by the influx of immigrants and demand has not kept pace with supply. It remains to be seen if a wider market can be created for the products of Idaho farms.

FRANCE.

I. — THE SUPPRESSION OF THE FISCAL PRIVILEGES OF BOUILLEURS DE CRU (1). — On August 26th., M. Ribot, the Minister of Finance, laid before the the Chamber of Deputies a bill of great importance. It aims at reducing alcoholism in the country districts by suppressing the fiscal privileges of the *bouilleurs de cru*, without, however, the producers being injured or the State or communal finances suffering.

In 1903, a law suppressed the privileges of these distillers, except, however, in regard to an amount fixed in advance for the amount of spirits consumed by the household. The officers entrusted with the supervision of the application of the law had to make search at the houses, and this caused such discontent in the country that in 1906 the privilege was re-established. The provisions of M. Ribot's bill, involving a thorough recasting of the fiscal system in regard to alcohol, avoid this difficulty.

Henceforth, distilling can no longer be carried on at home. The stills in the possession of private persons, in regard to which the excise office is thoroughly informed, will be bought at the desire of the distillers. So there will be no more searching of houses, as there will be no more stills. The distillation will be done for the small farmers in public establishments, such as have already been formed by the producers in several departments, especially in the Charentes district, and there the work will be supervised. All the alcohol for sale, whatever its origin, will pay the same dues. The rate will be raised from 220 fr. to 500 frs. the hectolitre. But town dues will be suppressed. For the town of Paris, where the 220 frs. per hectolitre are increased by 195 frs. town dues, there will therefore be an additional charge of 85 fr. The increased charge will naturally be more considerable in those towns where the town dues are less or where there are no town dues. By way of compensation, the fifth part of the yield from the dues will be distributed among the communes in accordance with a table, and rural communes will be favoured. They will receive an important proportion of the excise dues, which will be the larger, as no town dues were levied by them. This will enable them to bear the decrease in the land tax.

In 1900, the increase of the excise dues from 156 fr. 25 to 220 frs. had reduced the consumption from 1,750,000 hl. to 1,350,000 hl. It is to be expected that the increase from 220 frs. to 500 frs. will have an even more considerable effect. Reckoning the future consumption at about 1,000,000 hl., the Minister of Finance finds that not only will the State lose nothing, but it will collect some scores of million francs more than today, especially as an extra tax of 100 frs. per hectolitre will be levied on *apéritifs* and liqueurs. •

(1) The *bouilleur de cru* is a land holder or tenant farmer who distills exclusively from wine, cider etc. of his own production.

The employment of certain ingredients in the composition of cheap *apéritifs* and liqueurs is forbidden: especially, thuyone, salicylic ethers and benzoic aldehyde, which were above all used in the preparation of imitation kirsch. The proportion of essential oils in all liqueurs is limited to 0.50 gr. per litre.

To protect the interests of the producers, the Government proposes largely to extend the consumption of industrial alcohol for industrial purposes. With this object from 1917 it will keep the monopoly of industrial alcohol, so as to obtain the fixed price necessary for industrial purposes. It will then endeavour to find new uses for it, especially in connection with the motor car industry.

Thus this great reform establishes general supervision in the case of alcohol for consumption and the monopoly of industrial alcohol. It is inspired by the requirements of public health and safeguards the interests of the producers, the trade and the Treasury.

2. — SUBVENTIONS FOR CULTIVATION WITH THE HELP OF MOTORS. — A Decree of the Minister of Agriculture of September 1st., 1915 has just regulated the grant of these subventions, as under:

Art. 1. Agricultural groups of at least seven members (professional syndicates, co-operative societies, syndicate associations) may receive for purposes of experiment and demonstration, subventions from the Department of Agriculture, for purchase of machine motors for cultivation, in accordance with the following rules.

These subventions may in exceptional cases also be granted to communes, during the war.

Art. 2. Applications for subventions must be addressed to the Minister of Agriculture through the Prefect. They must be accompanied by the Prefect's report and the following documents drawn up or passed by the manager of the agricultural services of the department.

(1) Descriptive estimate and price of machine as well as statement of the mode of payment agreed to by the supplier;

(2) Regulations in regard to the conditions of the use of the machine;

(3) In case of an agricultural group, two copies of the rules of the syndicate, society or association, and a note showing the number of members, the capital at their disposal and the bases on which the expenditure and collective charges are distributed among them;

(4) In case of a commune, a vote of the municipal council authorizing the operation and fixing the amount of the funds by which the expense is to be met;

(5) A report showing the topographic and soil characters of the region in which the machine is to work, the area to be cultivated, the mode in which it is divided and the general details of the plan.

Art. 3. The subventions are distributed by the Minister of Agriculture, after consulting with a special commission composed as follows:

The director of agricultural instruction and agricultural services, president.

The head of the agricultural mutual credit and co-operation service ;

A general inspector of agricultural improvements ;

The general inspectors and inspectors of agriculture ;

The director of the machine experiment station ;

The secretary of the agricultural labour commission ;

An officer of the agricultural encouragement bureau, as secretary.

Art. 4. The amount of the subvention is fixed in accordance with a table approved by the distribution commission, subject to the approval of the Minister. It cannot exceed the third part of the expenditure for the purchase of the machine, and the fourth of that amount in the case of a group which also applies for agricultural credit.

These maxima may be raised respectively to one half or one third in the case of regions that have suffered by the war.

Art. 6. The agricultural groups subsidised may not place their machines at the disposal of persons other than their members.

3. — AN INTERESTING EXAMPLE OF THE APPLICATION OF THE SMALL HOLDINGS LAW. — The Saint-Omer Real Estate Credit Society held its annual general meeting on June 29th., 1915. This society is one of the oldest and most important, founded for the application of the law of April 10th., 1908, facilitating town and country workmen to obtain small holdings. The Real Estate Credit Societies receive, as we know, advances from the State at 2 % and lend (on the security of mortgage and life insurance) to persons of small means $\frac{4}{5}$ ths. of what they require either to purchase or build a healthy house, or purchase a field or garden of one hectare area and a maximum value of 1,200 frs., which they undertake to cultivate themselves.

The report of the board of management of the Saint-Omer Society shows that since its foundation (May 2nd., 1912) the Society has made 83 loans for an amount of 312,162 fr. 70. One of the borrowers died on March 27th., 1914, after having contracted a loan on January 13th. of the same year ; the National Insurance Institute paid the society the amount assured by it on his life (3,330 frs.) as soon as it heard of the death.

Of all these loans, 63 are to be repaid in 25 years, the others at earlier dates, the earliest being 10 years.

The average loan is 3,762 fr. 50, if the society advances the life insurance premium, and otherwise 3,277 fr. 50.

The instalments to be paid by the borrowers vary from 6 frs. to 35 frs. per month ; in one case only reaching 40 frs. per month.

It is interesting to observe that the number of the persons engaged in agriculture who have recourse to the Real Estate Credit Society is particularly large. In the statistical tables showing the profession of the borrowers, farmers, agricultural labourers, gardeners and shepherds head the

lists. Fourteen loans were made to members of these classes. Then come office and commercial employees, 12 in number, next railway employees, 11 in number etc.

Twenty nine of the properties bought by means of loans from the society are situated in towns and 54 in the country.

(Summarised from the *Bulletin de l'Union Centrale des Syndicats des Agriculteurs de France*. August, 1915)

4. — AGRICULTURAL INSTITUTE FOR PERSONS DISABLED IN WAR. — The *Union du Sud Est des Syndicats Agricoles* has decided, with the assistance of the Paul-Michel Peiret agricultural institution, to found an agricultural institute for persons disabled in the war, at Limonest, 7 km. from Lyons.

This Institute offers its services to the disabled, either definitely exonerated from service as unfit, or temporarily on leave. For admission, the applicants must undertake to conform to the rules of the establishment and promise to study the methods of agricultural improvement and adaptation, and attempt to take part in general agricultural work according to their abilities. Free lodging and board will be assured to them by means of benevolent donations.

The thought inspiring the South East Union in this action is the desire to show that the agricultural profession is not closed to those disabled in war, that, on the contrary, there is more comfort and security for them to be found in it than in industrial or urban professions. It is even possible in fact that those who have had an arm amputated may adapt themselves better to agricultural than to industrial work. But, in order to encourage combatants to return to the country, who have been born there or are attached to it by family ties or through property possessed there and to maintain themselves in their profession and in their environment, it is necessary to educate them again to agriculture. This is the aim of the General Institute for the Disabled, founded by the South East Union. It will seek :

1. to discover systems, implements and methods which will enable the disabled to do work they perhaps believed themselves unfit for (for example study the methods and implements that will enable a man with one arm to plough).

2. to discover and give instruction in regard to labour or cultivation possible for the disabled, and able either to yield them an accessory revenue, or even to be their sole and principal occupation (for example, beekeeping, gardening, arboriculture etc.), the return from which, together with the pension from the State will enable a disabled landowner to work and live, provided he has assistance for work exceeding his strength.

(Summarised from the *Bulletin de l'Union Centrale des Syndicats des Agriculteurs de France*. September, 1915).

GABUN (FRENCH COLONY).

LAND POLICY AND NATIVE AGRICULTURE. — On June 15th., 1915, the Governor of Gabun, M. Guyon, communicated to the Colonial Institute at Marseilles the instructions he had just prepared with a view to the formation of native plantations of cacao trees and the progressive organization of the natural palm groves. The programme of the Government of the Colony consists of two quite distinct portions.

1st. The formation by the natives of cacao plantations by preference on the site of palm groves, the yield from the palm trees enabling the cultivators to wait without anxiety for the slow cacao harvest.

2nd. The progressive utilisation of the natural palmgroves in the neighbourhood of native villages.

The intention of the Government is not to form immense scientifically organized plantations, but many little farms. It professes to be inspired by the example of the Gold Coast, which exports 40,000 tons of cacao a year and the prosperity of which is due to the manifold and persistent efforts of the native farmers.

The Governor urges his subordinates to make the natives understand that, if they wish to improve their material conditions, they must not confine themselves to the cultivation of manioc and bananas for consumption. The work required for such cultivation does not suffice to keep the native occupied, and he remains idle a large part of the year. He must be brought to devote his free time to such cultivation as will bring him in a revenue and to profit by the wealth that nature has placed within his reach, in the form, for example, of cabbage palms.

So much said, we shall now mention the practical measures the Governor proposes in order to promote the foundation of these small farms. Subject to circumstances which can only be appreciated on the spot, the Governor lays it down as a principle that, in the case of each village presenting the necessary aptitude for production, on an average a family of four adults of either sex shall be required :

1st. to plant forty cacao trees a year. This is no heavy task, since in one day a single person can easily dig ten pits to receive the cacao plants or seeds.

2nd. to ensure the maintenance in good order of the plantations and the cultivation of the trees that has been begun, to proceed each year to substitute new trees, form new plantations and progressively organize the plantations. This means that in eight years' time, for example, a family, of four persons will have planted and cultivated 320 cacao trees and have under its charge 80 palms. At that date, the farm would be ready to give a return, and would have about 200 cacao trees and from 60 to 70 oil palms, altogether 300 trees, from which a certain revenue could be ob-

tained after deduction for losses. These 300 trees would cover an area of less than half a hectare, as 1,000 cacao trees and 180 palms are reckoned to the hectare. A group of four farmers will be able without difficulty to maintain a plantation of this area, as on European farms, one native workman suffices for a hectare of cacao trees.

In order to realise this programme, it is of the greatest importance to prepare the natives for collective effort. This is a condition necessary for the continuance of the work, the due maintenance of the plantation and the palm trees. It is then important in the first place, that the plantations and the cultivation of palms be undertaken by the different villages under the authority of the Chief and the supervision and control of the "chef de subdivision", who must not fail to make the native groups clearly understand that the profits from the labour thus demanded from them will be exclusively their own.

The "chef de subdivision" shall proceed in this spirit to the selection of suitable sites, with the assistance of the Inspector of Agriculture. The latter functionary will then instruct the planters in regard to the clearing of the land, the preparation of the soil, the planting of the seeds and trees, the distribution of trees for shade and shelter, the management of the palm trees, and the care to be given to the young plants.

Plants and seeds will be supplied by the Agricultural Department and distributed freely to the planters in presence of the village chiefs. With this aim, the Department has this year started large nursery gardens at the Libreville experimental garden, and will be able in the next rainy season to supply about 100,000 cacao trees. The manner of distribution will be noted in the registers of cultivation of the Subdivisions, which were instituted in connection with the distribution of encouragement prizes for the cacao palm growers. The natives will be advised of the penalty they will incur, if, through their fault, these seeds or plants are lost or not used. Under certain conditions, such an event will be considered as constituting a fraud, to be punished by the native court. The cultivators will be further bound to conform to the technical prescriptions laid down by the Agricultural Inspector, and those who show themselves negligent or refractory may be considered as without ground refusing to conform to the Government instructions, which is an offence punishable under the Native Code. However, the Governor urgently recommends that severe measures be not resorted to until all possible means of persuasion are exhausted. "Systematic reprisals", he says, "would discourage the natives. The results desired may be obtained by firmness, but above all by perseverance and supervision of the planters' work."

In spite of the difficult situation created for Gabun by the state of war, first attempts have been made in two districts near Libreville. The experiments now being carried out in the region will serve as a basis for future efforts, and, gradually, as circumstances permit, the application of the programme will be extended to other districts. In a few years, the colony will have a respectable number of cacao trees and palm trees and the crops will considerably increase the export trade.

In addition to this, not only will the foundation of these native farms in no way interfere with the working and the progress of those belonging to Europeans, but it will be a means of increasing the prosperity of the latter. The cacao harvested by the natives will be for the most part bought by the colonists and the produce of the palm groves will contribute to supply the factories set up by the colonisation societies. To these results we must add those which a more advanced agricultural education of the natives will give. The effect of the action of the Government will be to interest the native population to a greater extent in the working of the soil.

The number of agricultural labourers will necessarily increase, which will ensure the colonisation societies of a supply of labour under better conditions.

(Summarised from *Expansion Civile*, bulletin of the *Institut Colonial Marseillais* of the first half year of 1915).

PROTECTORATE OF MOROCCO.

ESTABLISHMENT OF A DEPARTMENT OF AGRICULTURE, COMMERCE AND COLONISATION. — The need has been increasingly felt in Morocco for an organisation in which the study of the problems of colonisation could be centralised. General Liautey has just founded one. A "*Dahir*" of August 30th., 1915 sets forth its aim.

At present, matters relating to colonisation are dealt with by various State services, only one of which, that of Economic Investigation and Information, is directly dependent on the General Secretariat of the Protectorate; the others depend either upon the General Department of Public Works (Agricultural Services and Service of Waters and Forests), or on that of Finance (Domains Service and Preservation of Homesteads Service).

Now in view of the increasing development of European interests in Morocco and the still greater extension they will probably attain, it is essential that all questions relating to colonisation should be made to harmonise, centralised, and made to depend immediately upon one organization. Incontestable advantages would be derived from this in the direction of the rapid solution of difficulties and in the facilitations the colonists, both those long established and the new arrivals, would have in knowing to whom to address themselves and in having the sources of information and the organizations for deciding questions centralised.

The central organization can only be the General Secretariat of the Protectorate, upon which all the services relating to colonisation would henceforth directly depend, the Agricultural Service and the Service of Economic Information united in one department, under the name of *Department of Agriculture, Commerce and Colonisation*, the Service of Waters and Forests, the Domains and Preservation of Homesteads Services.

Consequently, the "*dahir*" institutes a Department of Agriculture, Commerce and Colonisation for the Shereefian Empire which will act as a Service of Agriculture in the strict sense, a service of Economic Investigation and Information, and will deal with problems in connection with the organization and work of Chambers of Commerce, Industry and Agriculture, and various similar associations of Europeans and natives, the livestock improvement and epidemic cattle disease service, that for the repression of fraud in the sale of goods and the adulteration of food stuffs and agricultural produce, the working of industrial and agricultural chemical laboratories, matters in connection with European and native thrift, mutual aid, and credit societies and generally every question affecting agriculture, commerce and colonisation.

(Summarised from *Afrique Française*, the monthly bulletin of the French African Committee and the Morocco Committee, September, 1915).

NOTICES OF SOME RECENT PUBLICATIONS RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

UNITED STATES.

STUDIES IN FARM TENANCY IN TEXAS. *Bulletin of the University of Texas*. No. 21, 1915, pp. 151.
Austin, Texas: Published by the University.

This volume is in the main the work of members of the teaching staff and graduate students of the University working in the Division of Public Welfare of the Department of Extension. Two out of the ten chapters have been contributed by workers in other Divisions of the University of Texas.

The problem examined is the familiar one of the increase of farm tenancy during the three decades from 1880 to 1910. Throughout the United States in these thirty years the proportion of tenants among farmers increased from 25.6 to 37 per cent. In Texas tenants increased relatively from 37.6 to 52.6 per cent. In the row of states from South Carolina to Texas, with Arkansas and Oklahoma to the north, three out of every five farms are worked by tenants, a much higher proportion than is found in any other considerable area in the United States. Texas may be taken as substantially representative of conditions within this group.

In the same group of states the bulk of the American cotton crop is grown, the great proportion of the negro farmers are found, and the evil of universal credit at exorbitant rates is greatest. The problem is all of a piece. The tenant, coloured or white, with no capital, ignorant and shiftless, is supplied with everything upon credit either by the landlord or by the merchant upon the landlord's guarantee, upon condition that he cultivates cotton and nothing but cotton and shares the crop with the landlord. The cultivator accepts the condition because he has neither the ability nor the capital necessary for any higher type of farming. Cotton is a laborious but not an exacting crop to grow: it will deteriorate if neglected, but will not be lost entirely by a couple of day's neglect as many other crops would. Moreover, it can be turned into cash as soon as produced and it is seldom a total failure. It often sells, it is true, at a price so low that the whole crop does not suffice to pay off the tenant's debt to the landlord or the merchant, but that is not looked upon as a matter for regret, since it ensures that the tenant must bind himself to produce cotton again in the following year.

Can this vicious system, compounded of tenancy, easy credit at ruinous rates, and the single crop which exhausts the soil, be broken up? That is the chief agricultural problem of the South.

Without doubt it can; and we note with pleasure that the conclusions of the volume before us are optimistic in tone. The writers present no sovereign remedy, no panacea for all the ills the land is heir to. They are, indeed, so conservative that their first proposal is that compulsory education be extended, and agricultural high schools established. Next they insist that some simple system of registration of land titles is needed, and suggest that a careful study should be made of the question of instituting some kind of graduated land tax and an inquiry made into the working of the homestead law. The writers would like to see the chattel mortgage abolished but recognise that it will probably survive until diversified farming has been taught to the people of the South. Numerous admirable agencies are spreading a knowledge of stock-breeding and crop-rotation and the outlook in this direction is encouraging. Finally, it is proposed that a Land Commission should be established and should undertake the task of drawing up suitable contracts of lease with the object of securing the longer occupation of holdings and providing for the carrying out of much needed improvements upon the land.

The volume belongs to the class of monographs which aim at disseminating information and building up a sound public opinion with regard to important questions upon which, sooner or later, it will be necessary to legislate. The idea is excellent, and in carrying it into practice it is obviously advisable to present sufficient statistical data to support the argument in hand. But it would be a mistake in tactics to overload the text with figures, and the writers of these *Studies* have perhaps erred in this direction. It is just a little difficult to see the wood for trees. In the first chapter occupying thirty-five pages we are called upon to examine sixteen maps and nine diagrams, and this we fear is rather more than the average reader is capable of assimilating. The average reader (it is worth while remembering) is apt to become either nervous or depressed in the presence of many decimals, and even a hardened reader may be excused if he gazes somewhat wearily at the sixteenth map of Texas.

CARVER (T. N): THE ORGANIZATION OF A RURAL COMMUNITY. Pamphlet. pp. 58. Washington: Government Printing Office. 1915.

This is a reprint of an article contributed by the distinguished economist to the Year Book of the Department of Agriculture for 1914. Dr. Carver fills the position of Adviser in Agricultural Economies to the Department and prepared this study for the use of the Office of Markets and Rural Organization.

Briefly, Dr. Carver here outlines a plan for the organization of the members of a rural community into a number of committees for the purpose

of carrying out schemes of economic and social betterment. He does not, of course, suggest that his plan and the schemes which he outlines shall forthwith be adopted and put into practice in rural communities everywhere throughout the United States. In the first paragraph of his article he lays it down that there must be a clear and definite need for organization in a community before any part of the plan can hope to achieve success. He deprecates haste, and warns would-be reformers that careful study must precede action. "A few bad mistakes and conspicuous failures," he says, "will discredit the whole movement and put it back for a generation."

Where there is a clear need and a real demand for organized action Dr. Carver proposes that a central or executive committee should be established, which committee should direct and co-ordinate the work of committees appointed for specific purposes. Each and every member of the organization should be assigned to one or other of the committees, and naturally, each would be assigned to the committee in the work of which he or she was most interested. The central or executive committee would be composed of the chairmen of the various separate committees, with a president, secretary and treasurer.

Taking the business interests of the community first as of fundamental importance, Dr. Carver proposes that committees should be formed to deal with (1) Farm production, (2) Marketing, (3) The acquisition of farm supplies, (4) Farm finance and accounting, and (5) Communication and transport. To deal with the community's social interests committees would be appointed on (6) Education, (7) Sanitation, (8) Recreation, (9) Beautification, and (10) Household economics.

The central committee would direct the general policy of the organization, have charge of all property either owned or rented, raise all funds needed, appoint all paid officers if any are needed, and conduct all correspondence with other organizations of a similar character, as well as with business or banking houses, railway companies, manufacturers and dealers. It is not necessary for us to follow Dr. Carver in outlining the work of the separate committees. The nature of the work which each is intended to undertake is sufficiently indicated in its title.

The study contains a great many useful suggestions and is, in fact, a kind of summary of all the officially approved advice, which has been proffered to the American farmer in recent years. Some of this advice, perhaps, runs the risk of being disregarded on account of its complexity. Rural organisation must, in its beginnings, proceed on very simple lines; elaborate schemes can only be carried out when the rural communities have become thoroughly accustomed to combined effort. Dr. Carver himself warns us that his own scheme should only be regarded as an ideal towards which to work.

ALLEN (C. E.): GREATER AGRICULTURAL EFFICIENCY FOR THE BLACK BELT OF ALABAMA
Annals of the American Academy of Political and Social Science, pp. 187-198. September,
 1915. Philadelphia.

In this paper in the *Annals* the writer first endeavours to show in as impressive a manner as possible yet with scrupulous fairness the agricultural situation in those counties in Alabama in which negroes form a majority of the population — the so-called "Black Belt," — and then discusses the possibilities of developing greater agricultural efficiency in this region.

For the purpose of showing what the actual situation is, he compares production in 1910 in the twenty-one counties forming the Black Belt with production in an equal number of counties, lying north and south of the Belt, in which whites predominate. In the Black Belt the average production of cotton per acre was 0.27 of a bale, and of corn 10.4 bushels per acre. In the "white" counties the average production of cotton per acre was 0.34 of a bale and of corn 11.4 bushels per acre. In the Black Belt the cotton acreage in 1910 was 51,840 acres greater and the corn acreage 140,614 acres less than in 1900; in the white counties the acreage under cotton increased by 203,880 acres and that under corn decreased by 102,594 acres in the same period. Where the negroes are in the majority, that is to say, 88,774 acres were abandoned during these ten years, while in the white counties an additional area of 101,286 acres was brought under cultivation. The disparity in efficiency however is greater than is shown by these figures, since it is an acknowledged fact that the soils of the Black Belt are naturally more fertile and better adapted to the growing of staples than the soils of other regions in Alabama.

In the matter of improvements and stock which add to the capital value of the farms the difference is more striking. In the Black Belt, between 1900 and 1910, land and buildings increased in value 88 per cent., and implements and machinery increased 69 per cent., while in the selected white counties the corresponding increases were 150 and 113 per cent.

The movement of the rural population is another useful index of the condition of agriculture which also serves to show how unsatisfactory is the situation in the negro counties. Between 1900 and 1910 the rural population of the Black Belt (if we exclude four border counties) decreased 37.1 per cent., while the rural population of the white group increased 21.3 per cent.

The remedies suggested are all of proved utility, — better educational facilities, definite instruction in agriculture, improved roads, co-operation. These we know are all capable of contributing their quota to the solution of the problem of the inefficient negro farmer, but as Prof. Allen points out they fail to touch the very crux of the problem, which is the question of the negro as cash tenant free from the landlord's supervision. The negro who is left for a year in undisturbed possession of a piece of land which he can cultivate as seems best to himself is the worst of all farmers. Either general conditions of life in the Black Belt must be so improved

as to attracts white farmers there, or the negroes must be content for at least some time to come to work under the direction and supervision of efficient white farmers. Even so it is imperative that the negro farmer should receive definite practical instruction in farming so that under the guidance of the white farmer he may gradually be raised to a higher level of efficiency. As things are the white farmer who undertakes the supervision of ten or twelve negro share-tenants finds that his own standard of efficient work tends constantly to sink towards their lower standard. Unless his efforts to produce efficiently with negro labour are supported by a broad scheme of instruction and education for the negroes themselves, he will be able to effect very little. The dead weight of ignorance and indifference will be too much for him to raise: in time it will even drag him down.

NEGROES IN THE UNITED STATES. Bureau of the Census. Bulletin 129. Washington: Government Printing Office. pp. 207.

In this volume are gathered together the principal and most recent statistics relating to the negro population of the United States, derived from the Thirteenth Census and from other statistical inquiries carried out by the Bureau of the Census. A similar volume was issued in 1904 containing the data collected at the Twelfth Census taken in 1900.

The information in the present monograph relates to (1) Population, (2) Agriculture, (3) Mortality, and (4) Religious Bodies. The material relating to agriculture is in large part published here for the first time and will be of special interest to our readers, who may recall an article in the *Bulletin* of June, 1914, on the "Social and Economic Progress of the Negro Farmers."

In 1910 there were in the United States 893,370 negro farmers, forming 14 per cent. of the total number of farmers. This proportion is considerably higher than the proportion of the negro population to the total population, which is 10.7 per cent. The number of negro farmers increased 19.6 per cent. between 1900 and 1910, while the number of white farmers increased 9.5 per cent.

The average acreage per farm worked by negroes in 1910 was 47.3 acres as against 153 acres for farms worked by whites, while the average value per farm was for negroes \$1,280 and for whites \$7,299.

Seventy-five per cent of the negro farmers were tenants and twenty-five per cent. owners. Among white farmers 68 per cent. were owners, 30 per cent. were tenants, and the small remaining proportion were managers.

In 1910 no less than 98.6 per cent. of all negro farmers were to be found in the South. In number of negro farmers Mississippi stands first, followed in order by Georgia, Alabama, South Carolina, Texas, North Carolina and the other ten Southern states. During the decade 1900-1910 Georgia advanced from fourth to second place. North Carolina, Arkansas and

Oklahoma also advanced in order of importance, while Alabama, South Carolina, Louisiana, and Kentucky declined.

The Director of the Census states that this volume is to be followed by "a more complete and comprehensive report on the same subject." The *Bulletin* itself reaches respectable dimensions, containing as it does more than two hundred folio pages, so that the fuller report will have interest only for the small number of persons who are making a special study of the negro problem in America.

It is interesting to learn that the statistical tables in this bulletin are the work of three negro employees of the Bureau of the Census.

GREAT BRITAIN AND IRELAND.

THE YEAR-BOOK OF SOCIAL PROGRESS FOR 1914-15. London, 1915. Thomas Nelson and Sons. 8^{vo}. 636 p.

♦ "In spite of the general concentration of interest on the momentous events which are now taking place on and across the seas," writes the editor of "The Year-Book of Social Progress" in a Prefatory Note, "the publishers have decided to bring out this Year-Book as usual. Two considerations may be mentioned as having helped them to this decision. Firstly, the period ending August 4, 1914, is one of great importance to the social reformer, and one of which some record must be kept even in the midst of war; and secondly the after-effects of the present struggle will make social progress a more vital and pressing matter than ever when the days of peace come again. For that time we must be prepared and although the social progress of the future will inevitably follow lines somewhat different from those of the past, its continuity will not be broken."

Admirably the Editor has carried out his task and the Year-Book is an extremely valuable compendium of information upon all social questions in the United Kingdom. A chapter of 59 pages is devoted to "The Land Question," and contains not only facts and figures relating to the land and to the results of land legislation, but a summary of the many remedies which have been proposed for the admitted evils of the existing land system. These proposals we have already outlined in the *Bulletin of Economic and Social Intelligence* (1), but it is worth while quoting the statement of the evils, as they present themselves to the view of a social reformer. "Of the three classes in the agricultural community, each has his own grievance. The landlord says that he gets a poor return on his capital and that, consequently, he is frequently unable to keep his estate in a proper condition. The farmer in turn, finds labour becoming scarcer, foreign competition fiercer, and ejection more likely, as estates are being sold with increasing frequency,

(1) Issues of June 1914 and September 1915, and the present issue.

while he has, as ever, to face the possibility of a bad harvest and unfavourable weather, with their attendant loss of capital. These grievances are serious enough to the individual and we do not wish to minimise them, but they are not, as the grievances of the agricultural labourer undoubtedly are, serious to the nation at large. The landowner and farmer have at least good houses and ample food, and their children have enough food and clothing to make and keep them strong and healthy, even if rents and profits are not what they should be; but we certainly cannot say this about the agricultural labourer and those dependent upon him. Moreover, it is possible to argue that low rents, foreign competition and a scarcity of agricultural labour are beneficial to other sections of the community, but no one has the hardihood to assert that the insufficient diet, the bad housing, and the scanty clothing of a large part of the dwellers in the country districts are of the slightest benefit to any one. The land question in the country, then, centres around the condition of the agricultural labourer."

Closely connected with the Land Question are those of Housing and Means of Communication which are dealt with in another chapter. "A thickly-populated country," says the Year-Book, "wants many houses for its people and there is an intimate connection between house and land. Land of some sort is indispensable, but a civilized country wants, or ought to want, more than this. The land on which the houses stand should fulfil two great conditions. Its situation should be good in itself and good in relation to the occupations of its inhabitants. It should be sufficient, both in quality and quantity, to give those who live upon it a good and ample supply of light and air, and its soil should be dry and in general suitable for building purposes; and it should be so situated that its inhabitants can get to and from their work without undue fatigue or undue loss of time. This last consideration brings in the question of means of communication. A cheap, frequent, and rapid system of transport is necessary to stimulate the agricultural industry and to enable the people to live amid healthy surroundings."

Many other questions connected with agricultural economy are dealt with in the Year-Book. In the chapter on Production and Wealth, a long section is given to Agriculture, and the efforts, governmental and private, which have been made to increase agricultural production are described. The wages of agricultural labour are dealt with in the chapter on the Land Question, but in that entitled "Labour and Wages" there is a section relating to Agricultural Co-operation. Other subjects treated at length are Old Age Pensions and the Working of the National Insurance Acts, both of which have an important bearing upon the economic condition of the agricultural labourer.

HOW CAN WOMEN HELP TO PROMOTE RURAL INTERESTS THROUGH THE CO-OPERATIVE MOVEMENT. Correspondence published in "Co-operation in Agriculture," London, July-August, 1915.

WOMEN'S PART IN COUNTRY LIFE. Leading article in "Co-operation in Agriculture," London, July-August, 1915.

The writers of the interesting series of letters published in the July-August number of "Co-operation in Agriculture" have by no means confined themselves to the restricted subject proposed to them and the title of the leading article on the correspondence gives a juster idea of the problem dealt with.

As treated in the letters the problem has two distinct aspects—"What can be done to improve the position of country-women?" and "What can women do to promote the general welfare of the country districts?"

The former of these questions is one which has arisen in many countries, but more especially in the newer countries, such as the United States and Canada, where the rural districts are still thinly populated. Even in the older countries, where the rural population is more dense and there is generally easy access to some neighbouring town, the position of women in country districts calls for special consideration. The "dulness of country life" is proverbial and the problem really resolves itself into the question "How can greater opportunities of social intercourse, of recreation and of self-improvement be brought within the reach of country women?" It is interesting to note that the most definite suggestion put forward is the organisation of a system of "women's institutes" similar to that which has proved so successful in Canada.

Perhaps if one aspect of the problem could be solved, the solution of the other aspect would follow, and one writer shows clearly that she regards the question as a moral, rather than an economic one. "Each woman must learn she has something to give; the best rose grower can make her village famous for roses, the noted bread maker can teach her art to her less gifted sister, the woman to whom books mean an escape from the drudgery of life must help others to the enchanted region, so that a solitary pride of individual possession will give way to the delight of imparting knowledge that will help others to enjoy good achievements."

From the economic point of view the principal suggestions put forward are that women should take a larger direct part in the cultivation of the land and that they should develop more largely those minor industries of the farm—poultry-keeping, fruit and vegetable growing, bee-keeping, etc.—which have always been to a great extent in their hands. This would enable them to take a more influential position than they at present occupy in any undertaking (such, for example, as agricultural co-operative societies) which aim at the economic betterment of the rural districts.

In so far as co-operation is concerned one writer remarks that the English farmer's wife is seldom really interested in helping to dispose of the farm produce; she seems to leave that entirely to her husband. Another,

following out the same idea, urges that co-operation in country districts should be extended to the supply of food stuffs, and adds: "Make it clear to the women that in some line of work undertaken in conjunction with their neighbours, it may be possible for them to give the means to promote the welfare of their children, to give the latter a better start in life and a prospect of greater ease than they themselves enjoyed and they will not be slower, but probably quicker than the men to find courage and resolution for the experiment." The activity of the Women's Co-operative Guilds in the towns is noted by yet another writer as worthy of imitation in the country, "but", she says "they centre round the co-operative shop, and unless the latter can first be started, there does not seem to be any way of setting a branch of the Guild on foot."

GREECE.

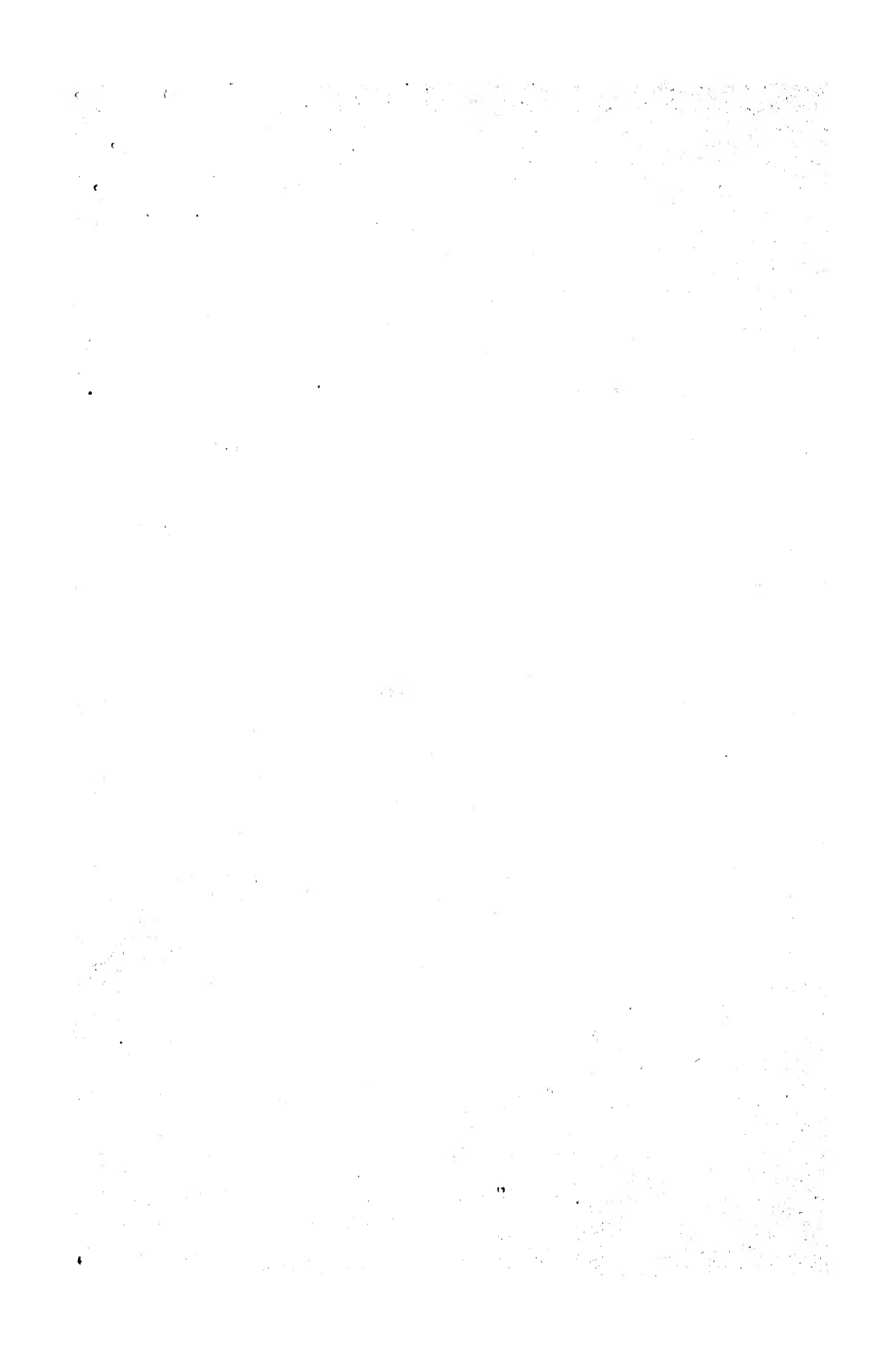
PAPAGEORGHION (PELEUS), Director of the Royal Agricultural Society of Greece: AGRICULTURAL GREECE. Athens, 1915. The "Hestia" Printing Office. 8°, 92 pp. 5 maps.

This brochure, written in English under the directions of the Committee of the Greek Section of the Panama Pacific International Exhibition, which was held this year at San Francisco, contains a comprehensive outline of Greek agriculture, both from the technical and from the economic point of view.

In Greece, we are told, both small and large holdings are to be found, but the prevailing system is that of small holdings. Typical districts where the cultivation is carried on by small proprietors are the Peloponnesos (Morea) and the Islands of the Aegean and Ionian Seas. Large holdings exist in Thessaly and Macedonia, and are cultivated in a few cases by the owners. More generally, however, they are managed on the *métayer* system or leased to farmers.

The author, who inclines to the view that both large and small holdings are indispensable to the agricultural economy of the country, remarks that large proprietorship has contributed greatly to agricultural development in Greece, since only large landowners have sufficient capital to introduce modern implements and new methods of cultivation. He notes, however, the growing tendency of the small holders to combine, and the encouragement given to them by recent legislation to form agricultural co-operative societies.

Old as the country is, Greece has yet its problem of colonisation, since it endeavours to provide land for many Greek refugees from neighbouring countries. In Thessaly, in particular, which was only thinly populated, many families have received an adequate portion of land, a cottage, a pair of oxen, ploughs, seed, etc., the payment for which will be spread over a period of years.



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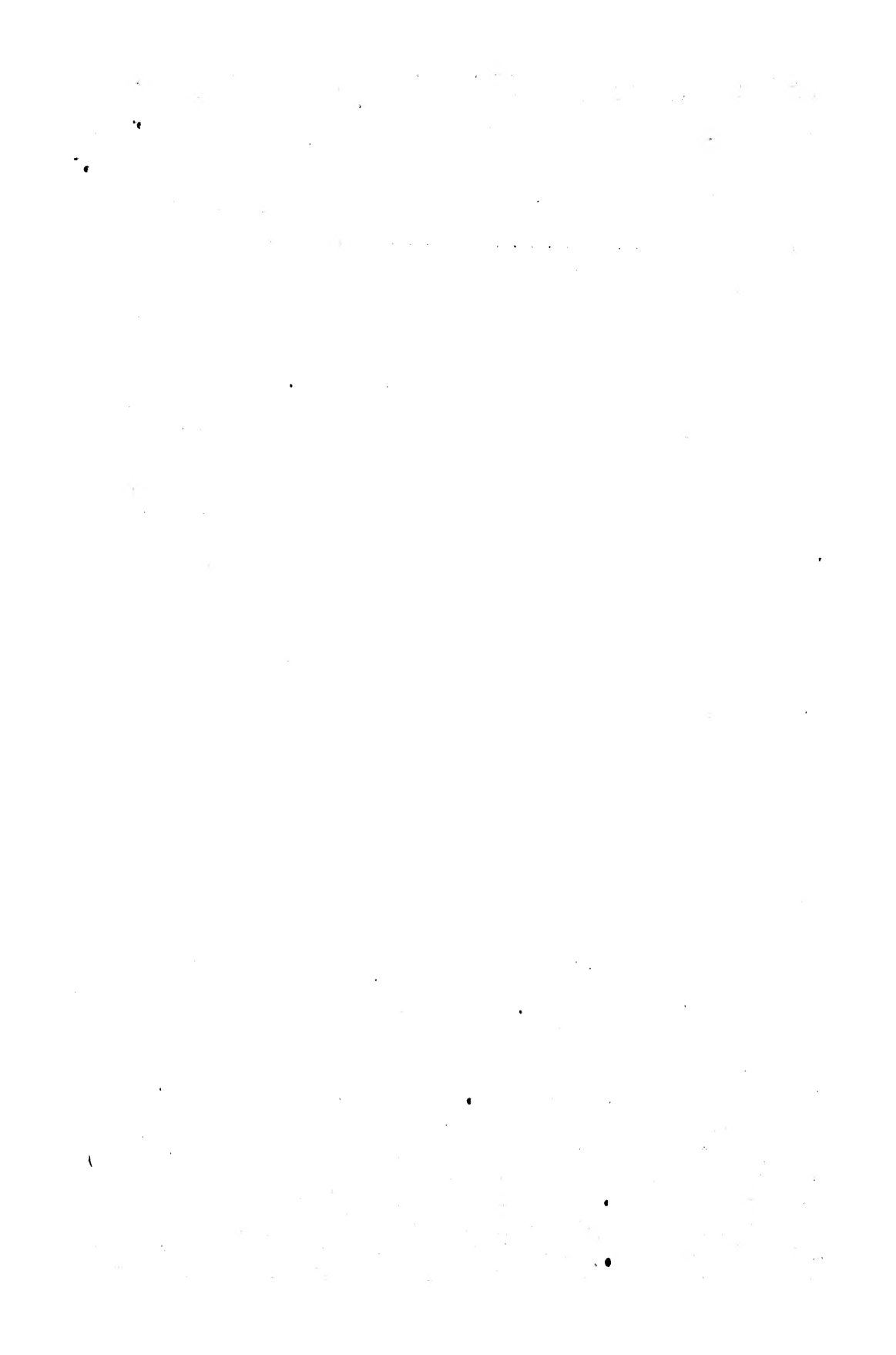
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Part I: Co-operation and Association

DENMARK.

CO-OPERATIVE DAIRIES IN DENMARK (*Continued*).

(This Article has been prepared at our request by the Danish Bureau for the International Institute of Agriculture).

§ 3. CO-OPERATIVE MANAGEMENT.

The daily business is conducted by the technical manager (*Mejeristen*), who is now as a rule a trained specialist. In the early years of the co-operative dairies this was not the case and in many places it is not so even now. The younger technical managers have, however, always received thorough instruction, since they have first been employed as apprentices in dairies and have then attended dairy schools. Three fourths of all the technical dairy managers have had an education of this kind.

The technical managers are organized in a technical dairy managers' union (*Dansk Mejeristforening*) for the whole country, which counts almost all the technical managers among its members. This union was founded in 1887. Its object is the development of the Danish dairy industry in general and especially the better instruction of all engaged in it and the encouragement of their collaboration with each other. In accordance with this idea, the union not only protects the interests of the technical dairy managers, but to an even greater degree exerts an important action in many ways for the advance of the dairy industry, of which we shall speak hereafter. The union is divided into 26 local circles each with its board of management independently conducting the business of the circle in accordance with the rules of the union. The organ of the union is the weekly paper "*Moelkeritidende*."

The technical manager is generally paid in proportion to the amount of milk received in the dairy and usually has an interest in the business. Frequently he is paid, as if he supplied a certain number of kilograms of milk per 1,000 kgs. of the milk received, at the average price the dairy receives for its milk. Out of his receipts he has usually to pay a certain percentage for consumption of fuel, light, use of furniture and other current working expenses.

The technical manager himself appoints the assistants he requires and pays them out of his own pocket.

The average receipts of a manager are, according to the returns of the Statistical Department, about 3,800 cr. a year; besides this he has free quarters. When he has paid his assistants, he has about 1,950 cr. net income, independent of his free quarters. The payment varies extraordinarily, not only in its amount, but also in relation to the importance of the dairies.

Both the Dairy Managers' Union and the dairy unions have been working in recent years for the regulation of the conditions of payment and the grant of higher salaries, and their efforts have already had good results. Moreover, what was certainly highly important was that the dairy unions themselves encouraged the idea and took the initiative in fixing a scale of remuneration, which is gradually being accepted as establishing the minimum of payment.

The Dairy Managers' Union has also been working to give the education of the apprentices a more substantial foundation and arrange for its supervision, by the appointment of a committee to examine if the course of instruction has been regularly followed in such a way that the learner has had opportunity of making himself acquainted with the various branches of the work and that a certificate has been given him.

In the co-operative dairies, the work of butter making is of quite the most importance, as the following table reproduced from the Dairy Statistics of 1913 will show.

Utilised for	Whole Milk Received	Separated Milk and Butter Milk
	— %	— %
Sale	0.5	2.2
Cheese Making	0.5	4.3
Butter Making	99.0	—
Returned to Members	—	93.5

It is only in urban dairies and in those in the neighbourhood of Copenhagen that the sale of milk is of any importance. Some dairies, especially those on the frontier, export cream to the German dairies.

Cheesemaking decreased considerably in the first years of the co-operative dairies and still is far from having the development and importance it had under the older conditions of Danish dairy farming. It is for the most part limited to coarse kinds intended for the home market. But cheesemaking is of considerably greater importance in the dairies of the large landowners and in the dairies worked in common, where it is not easy to utilise the milk in any other way. Even amongst the co-operative dairies we may now observe a growing interest in cheesemaking. The Dairy Managers' Union has especially begun to exert itself in favour of the increased manufacture, by means of the systematic holding of exhibitions and in connection with them, the classification of the different qualities of cheese and experiments in cheesemaking and the keeping of cheese. In 1901 a special committee was appointed for the organisation of co-ordinated and scientific experiments in cheesemaking. It aims at establishing a special scale of points, and its efforts are centred on the determination of a kind of cheese suited to the English market. If the result is satisfactory, it is probable that cheesemaking will assume very much more importance for Danish dairies.

These efforts are encouraged by the State by means of subventions to the cheese shows and the payment of the salary of an expert.

But cheesemaking can hardly become more than a profitable auxiliary industry. Buttermaking predominates, and from the first every effort was made for the adoption of the most economical methods, the production of an article as fine and as uniform as possible and possessing the best possible keeping qualities, and for securing the best possible conditions of sale. This effort has succeeded to such a degree that Danish butter is so uniform that it can be placed on the market under a single trade mark (*Lurmaerke*).

The dairy industry finds a great support, in this connection, in the series of experiments in dairying, which are carried out in the Laboratory for Agricultural Experiments of the Royal Veterinary and Agricultural Academy. In this way a succession of important improvements have been attained, and in addition the dairies have, by means of innumerable experiments for the purpose of comparing and judging the various kinds of apparatus constructed for the requirements of dairies, obtained guidance both in respect to the purchase of machinery and to the use of it. In like manner experiments in regard to the ripening of cream led to the application of pure cultures of lactic acid bacteria. Experiments in regard to the preventive effects of pasteurising on defects in butter, carried out in 1891, induced almost all the dairies to begin pasteurising their cream, within the next few years, with the object of giving their butter the best possible keeping qualities and rendering it as even as possible. In most places the separated milk had been already earlier pasteurised, so that the members might receive it back in a utilisable condition. Pasteurisation both of the separated milk and the butter milk was first ordered by law in 1898 and that of cream for production of butter for export first in 1904, after practically all dairies had adopted this process of their own accord.

A very effectual incentive was given to the efforts to make Danish butter, a first class, uniform commercial article, by the butter shows, of which there are three different kinds; the legally established Butter competitions of the Experimental Laboratory, the local shows of butter in casks (*Böttendstillinger*) and the large annual provincial shows.

Since 1889, a continuous succession of butter shows has been held at the experimental laboratory of the Veterinary and Agricultural Academy. These shows have acquired great credit in dairy farming circles and have had a continually larger number of adherents, so that on January 1st., 1912, 1,078 dairies were represented at them. On January 22nd., 1912, these shows became compulsory under the Law of April 12th., 1911, on trade in butter and foreign agricultural produce, etc. The exhibiting dairies are summoned to submit their butter for examination by the judges regularly three times a year. They must at once send a "drittel" (100 kilos.) of the day's output of butter. This is then kept 14 days before it is judged. The names of those dairies which are judged to have sent the best butter are published. The dairies the butter from which is judged to be bad are warned that they run the risk of forfeiting the right to use the "Iur-mærke." and receive instructions to seek advice from the Government expert. If there is no improvement, the dairy will really lose the above mentioned right.

The shows of butter in casks are local shows, which as a rule are meant for the dairies in a single circle of the Dairy Managers' Union. They were originally arranged by this Union, and later on by the dairy unions also. In each circle from 6 to 12 shows are held a year, at which the butter of the several dairies is compared and judged by a committee of judges, consisting of the technical managers, butter exporters and the local dairy expert. The butter is kept 14 days before it is judged; the exhibitors do not know beforehand the day on which they will be invited to send in their exhibit. The several dairies are informed privately of the results of the judging. At the end of the year the names of those dairies are published that were judged to have forwarded the best butter, or the produce of which in the course of the year did not fall below a certain standard.

The original object of these shows was only to give the dairy managers a better knowledge of butter produce, since it was rightly considered that the quality, on which the price depends, must be judged by the consumer alone. So the dairy managers in rotation took part in judging under the direction of experienced men and specialists. This system, continued for years, has brought it about that most of the Danish dairy managers have now a good and solid knowledge of the produce in question. But it was soon apparent that these shows might have advantages of another kind. Through them the dairy managers had an opportunity of inspecting and examining the produce of other dairies, of discussing the various questions of importance for their business with competent persons and taking council with them. In connection with the shows lectures were delivered and discussions opened on matters relating to dairy farming,

especially to butter production and they have proved themselves generally to be an excellent means of instruction. At the same time these frequent examinations as well as the experiments of the laboratories are a potent incentive to the removal of defects and the improvement of the quality of butter generally.

In addition to these local shows, in the three principal regions of the country larger butter and cheese exhibitions are annually held. Only those dairies that have exhibited at all the shows of butter in casks held in their region are allowed to exhibit. Manufacturers of dairy machinery also exhibit at them. The character of these shows is above all competitive. Medals and honourable mentions are awarded. Altogether their purpose is rather to excite public interest than to assist the ordinary work and on this account they have been attacked as useless, yet hardly fairly; for they are certainly not without real importance; in any case the merchants are agreed that the butter before and after the shows is better than at other times.

Whilst the shows have made it possible to compare the produce of the various dairies and in this way have assisted in obtaining a uniform and good quality of butter, the dairy statistical returns, making possible a comparison of the working expenses, profit and prices obtained, have been perhaps of no less importance. They have favoured the adoption of the most economical system of working and the attainment of a uniformly good price for the butter.

Already since 1884, in the earliest years of co-operative dairying, in the desire to ascertain the working expenses and net yield of the dairies led to the collection and publication of the balance sheets, and since a comparison within the limits of so uniform and special a field necessarily proved in a high degree instructive, its interest for dairy circles was considerable and the statistics were continued and extended. When the dairy unions were founded they made it one of their duties to collect and publish dairy balance sheets and some of them systematically elaborated the material collected.

The unfavourable butter quotations led to the weekly publication since 1894 of local reports of the prices of butter received, so that each individual dairy might see if it had received prices in proportion to those received by other dairies.

Since 1903 balance sheets from all parts of the country have been submitted to a common systematic elaboration. A Special Committee for Dairy Statistics consisting of representatives of the Central Organization of the Dairy Unions and of the Managers' Union, has been charged with the work and the State gives subventions for the elaboration of the material and its publication. The number of dairies that support this undertaking and have sent in their balance sheets has constantly increased; they now number more than 700.

On the basis of these statistical returns we shall now give a more detailed account of the situation of the dairies and their development in recent years.

The average number of milk-suppliers per dairy in 1913 was 157, the number of cows, 958. The amount for which the dairies were insured against fire, which to some extent corresponds with that of the invested capital, was on an average 33,212 cr. Consequently, the value of the capital invested in all Danish dairies must amount to about 40,000,000 crs. The debt still due per dairy was 16,315 cr. The gross yearly receipts per dairy were 273,306 crs. Out of these receipts, on an average, 36,948 crs. were distributed as bonus, the balance of the net profits being discounted and distributed in monthly instalments to the suppliers.

The amount of milk supplied to the dairies per cow per year was 2,621 kgs. (To arrive at the actual yield of milk, we must add that utilised for household purposes, which may be reckoned at probably 10 %). This figure has steadily risen, partly owing to better feeding and partly to a remarkable improvement in the quality of the stock.

The average annual yield per cow has been:

Year		Kg.
1884	about	1,250 - 1,500
1888	»	1 750
1898	»	1,975
1903	»	2,425
1908	»	2,675
1913	»	2,621

This increase, together with the increase in the number of cows, which was in 1881 900,000 and in 1913 1,300,000, has given the dairies, in spite of the fact that they are continually increasing in number, always more milk to treat. According to the industrial census of 1906, the amount of milk treated per dairy was about 2,130,000 kgs; according to the dairy statistics of 1913 it was 2,510,000 kgs.

At the same time, success has gradually been attained in the better utilization of the milk. The average quantity of milk required to make a kilogram of butter has steadily decreased.

The amount of milk per kg. of butter was:

Year	Kg.
1898	26.5
1903	25.6
1908	25.6
1913	25.3

If we carried our investigations still further back, we should find a still greater difference.

The gross amount received for the butter made from 1,000 kg. of milk was in 1913, 84.12 crs., and the corresponding working expenses 887.8 öre. Reckoning, as is customary, the separated milk and butter milk returned to members at 2 öre per kg., the whole milk yielded on an average 9.5 öre net per kg.

The working expenses per 1,000 kgs. of whole milk were distributed as follows:

	Öre
Carriage of Milk.	340.8
Fuel	104.2
Remuneration to Manager and Assistants . .	155.0
Upkeep of Building	12.6
Upkeep and Renewal of Plant	40.8
Other Expenses	234.4
Total . . .	887.8

The amount of these items of expenditure of course varies very greatly not only in the dairies as compared with one another, but also in the various districts of the country and in dairies of different sizes. For example, the cost of carriage must necessarily vary, according as the suppliers live at greater or less distances from each other. In isolated thinly peopled *Aemter* (1), it is quite 4 or 5 crs. per 1,000 kg; in others more densely populated only from 2 to 3 crs. Characteristic differences appear also in the different districts in respect to the cost of installation and the interest on it, the greater or less wealth of the population, or even their spirit of economy, making itself felt in the matter of the installation.

The difference in the working expenses of the large and small dairies is of great interest. Leaving out of consideration such expenses as are not borne by all dairies, such as expenditure for carts, cans (for transport), cheesemaking and small consignments, we find that the working expenses reduced in this way will give us in some degree a true and reliable idea of the effect of the size of the dairy. The results of the comparison of the working expenses of dairies of different sizes are shown in the following Table:

(1) Denmark is divided for administrative purposes into "*Aemter*."

Reduced Working Expenses (inclusive of Carriage of Milk) per 1,000 kgs.

	Öre per 1,000 kgs.
3,000,000 kgs. and over	820.4
From 2,500,000 kgs. to 3,000,000 kgs. . . .	848.6
" 2,000,000 " " 2,500,000 " . . .	864.6
" 1,500,000 " " 2,000,000 " . . .	881.6
" 1,000,000 " " 1,500,000 " . . .	937.2
Less than 1,000,000 kgs.	1,101.2

The working expenses are thus considerably less for the large dairies than for the small ones, and they are especially heavy for quite small dairies. On the contrary there is no difference in regard to the quantity of milk required to make a kilogram of butter, nor in regard to the price of butter, as between large and small dairies.

The individual differences may also be exceedingly great in certain directions, even in cases in which special circumstances only come into consideration in a small degree and even taking account of the difference in size of the dairies. In respect to a single item, the cost of fuel, the following table shows how great the difference may be and what immense progress is possible in this direction.

Average Expenditure on Fuel in Crowns per 1,000 kgs. of Milk from one quarter of the Dairies with Maximum and Minimum Consumption of Coal.

Dairies receiving a Quantity of Milk of	One quarter of Dairies with Maximum Consumption of Coal	One quarter of Dairies with Minimum Consumption of Coal	Total Number of Dairies
Over 3,000,000 kgs.	112	72	90
From 2,500,000 kgs. to 3,000,000 kgs. . . .	120	78	98
" 2,000,000 " " 2,500,000 " . . .	124	82	102
" 1,500,000 " " 2,000,000 " . . .	136	90	112
" 1,000,000 " " 1,500,000 " . . .	152	91	124
Under 1,000,000 kgs.	236	122	170

We see that the individual differences are greater among the small dairies, and this is generally true.

In these directions the dairy statistics have had particular importance, as they have shown the individual dairies their special faults and have incited them to emulate those more advanced.

§ 4. EXPORT OF THE BUTTER OF THE CO-OPERATIVE DAIRIES.

The total export of Danish dairy produce in 1913 amounted to 223,000,000 cr. Of this 22,500,000 cr. represented milk and cream exported to Germany, and 200,000,000 crs. butter, altogether about 91,000,000 kgs. By far the largest proportion of butter, as is shown in the following table, was shipped to Great Britain:

Export of Danish Butter (in "Dritteln" of 100 kgs).

To	1913	1912	1911	1910
Great Britain	812,867	752,575	797,550	811,426
Austria-Hungary	42,928	31,333	17,887	7,425
Germany	12,408	27,124	39,050	25,950
Switzerland	2,229	2,031	1,383	284
Other Countries	468	669		
Total . . .	870,900	813,732	855,870	855,085

For easier sale on the British Market most of the Danish butter is packed in "*Dritteln*" of 100 kgs. net. A small quantity (about 1,000,000 kgs. in 1913) is exported in boxes, principally to England, and a somewhat more important quantity (in 1913 about 3,000,000 kgs.) in air tight packages to many different, especially oversea, countries.

Danish butter has a firm place on the English market, as Denmark provides quite $\frac{2}{5}$ ths. of the total amount of the butter imported there and twice as much as Australia, the country next in importance as a supplier of butter, can furnish. Its position in the market is rendered even more firm by the fact that Danish butter is so uniform in quality and quantity as compared with that of other countries. There is only a slight difference between the butter of the various dairies, and an almost equal amount is produced every week throughout the year. As a first class product it is also less affected by falling prices than inferior goods. The butter also, thanks to the efficiency of the Danish tradesmen has become universally known in England, so that even Irish dairies purchase Danish

butter to supplement their own production and retain their customers during the season when they themselves are not in a position to supply them.

The Danish exporters have been competitors in the large English importers, and since Danish butter is often utilised by the retail dealers as an advertisement and sold without a profit, the middlemen's profit is generally reduced to a minimum, so that the dairies receive a very high price for their butter in comparison with the retail price in England.

The butter is generally sold f. o. b. at the Copenhagen Quotation, which, accordingly, is of extremely great importance. It is fixed on the Copenhagen Exchange by a Butter Quotation Committee composed of wholesale butter merchants. For some years also farmers were represented on this committee, but this is no longer the case. The farmers have now their own quotations.

This matter of quotations for years presented serious difficulties. The quotation did not correspond with the prices actually paid, since the competition among the purchasers led to the payment of overprices, in which the dairy managers had a great interest, since a part of their income depended upon the overprices received. In reality, the effect was to lower the quotation. Repeated attempts were made to remedy the evil, by including the overprice, but every time the inclusion was treated as a real rise in price and as such charged against the buyers, while the overprices continued to exist. These unjustified and disproportionate increases in price excited great dissatisfaction in England. At one time the English merchants quite ceased to buy at Copenhagen quotations, so that these were for a time quite disregarded.

Another result of the system of overprices was that the individual dairies could not learn from the quotation the real ordinary price of butter, which weakened their position in regard to the buyers. On their part, also, the farmers considered the overprices as a menace for the quality of the butter, since these overprices were nominally only paid for specially fine butter, whilst in fact they were everywhere general.

In order to provide a sort of check on the purchases of butter and on the prices paid, weekly returns now began to be made of the prices received by each of the dairies and from these the price of fine butter was estimated. These butter price statistical returns, as they were called, were first started by the farmers' unions in 1894, but soon afterwards were imitated and extended by the newly founded dairy unions; these at first undertook the work each in its own district, but when they had united in a common association they established a common butter price statistical office for the whole country. In 1903 the work was entrusted to the Dairy Statistics Office.

Attempts were made to regulate the matter of quotations by means of various reforms, a continual endeavour being made to increase the influence of the farmers in establishing the quotations. But there was, however, no success in introducing a scientific basis. The quotation, on account of the overprice, continued low and unstable. In 1912 all co-operation between

the farmers and the wholesale dealers in this field came to an end. The farmers started their own quotation. So there are now two quotations, that of the wholesale dealers, established in accordance with news of the changes in the trade conditions in England, and that of the farmers, which is based on the information furnished by the butter price statistical returns in regard to the prices asked and received.

This arrangement has proved successful, for the two quotations do not differ greatly and complete and correct each other, so that a continual increase in the overprices is prevented.

Another danger by which the position of Danish butter in the English market was threatened was the Danish transit trade, in butter from Sweden, Finland and Siberia, where Danish merchants have established an important butter industry. This butter, which was less uniform and of considerably inferior quality, was often sold in England as Danish butter or in any case so considered by the purchasers and in this way the reputation of Danish butter suffered.

This excited the wish for a common national trademark for all Danish butter. However the fear of damaging the profitable transit trade prevented legislation to that effect, and so for a long time the realisation of the idea was postponed. Finally an indirect means of realising the desire was found, indeed, with the help of the existing laws, as a single dairy requested authorisation to use a trademark and then gave other dairies the right to use it, while at the same time they bound themselves to take legal measures against any unauthorized use of it. On this basis the "Butter Trade Mark Union of Danish Dairies" was founded in 1900, and in a few years it included all the co-operative dairies. The butter trade mark, called *Lurmærke*, consists of four old Scandinavian battle trumpets (*Lur*) interlaced. The merchants showed themselves favourable to this arrangement, which had been carried out voluntarily. It became also evident that the trademark had a good effect on the sale in England and as a result of a few prosecutions, the unauthorized use of the trademark was put a stop to. It was therefore desired to obtain a more sure position for the trademark in Denmark and greater consideration for it abroad, by getting legal sanction for it and placing it to a greater degree under the protection of the Government. By the Law of March 30th., 1906, on trade in agricultural produce and its exportation, the *Lurmærke* was imposed as the common legal trademark for the country for all Danish butter and by the Law of 1911 on the trade in foreign butter and agricultural produce its position was still better assured, it being prohibited to export butter except under this trademark.

Finally in 1912 it was officially recognised in England, through the action of the Danish Department for Agriculture, as the common trademark for Denmark, and efforts are now being made to give it similar protection in other countries and also to obtain international recognition of this kind of national trademarks.

There is no doubt that the *Lurmærke* is very important, and the idea has been adopted in other countries; so Sweden has the *Runnenmarke* for

Swedish butter and Ireland has introduced an old Irish emblem for Irish butter.

Considerable difficulties were put in the way of the export of butter by the English Butter and Margarine Act of 1907, Section 5 of which forbade the import and sale of butter containing more than 16 % water and imposed fines and provided for the confiscation of all the butter bearing the same trademark in case of contravention. Attempt was first made to induce all the dairies to make their butter conform exactly with the requirements of the English law, since the Dairy Managers' Union strongly desired to avoid legal compulsion. But as the object could not be attained in this way, the Law of 1911, in accordance with the joint desire of the dairy unions and the managers' unions, forbade under pain of fines the export of butter containing more than 16 % water, and the use of the *Lurmærke* for such butter.

The Department of Agriculture can, on the recommendation of the Central Dairy Organization, order those dairies that desire to be authorized to use the *Lurmærke* to enter their butter for the butter competitions organised in accordance with the law by the agricultural experiment laboratories and for the shows instituted by the dairy organizations.

Most of the export is in the hands of Danish wholesale butter merchants and British wholesale importers, but the Butter Export Unions also export considerably ; as we have mentioned, six of them at the beginning of 1915, with an annual sale of about 43,000,000 crowns, exported about one fifth of the total amount of butter exported. That these Unions have not increased more largely is due to the keen competition between the wholesale dealers and the English buyers, which considerably reduced the middlemen's profits, and thereby made the existence of such export unions less necessary. For all that, these unions are very important, since they serve to increase competition and especially in recent years have they been of no less importance in the matter of the quotation problem, as they have supported the farmers' quotation, which is usually a little higher than that of the wholesale dealers. The export unions have been guided in their purchases by the farmers' quotations and thereby have compelled the wholesale dealers to follow the example, if not formally, yet generally virtually, through a supplementary adjustment of the difference between the wholesale dealers' quotation and that of the Statistical Committee. Moreover, they have supplied the quotation committee with information in regard to the conditions of the market and contribute to make the quotations as reliable as possible.

Hence it comes that the export unions seem to provide the most effectual means for obtaining payments really in accordance with the quality of the butter, which would be of the greatest importance for the production of butter. In the present conditions of the butter trade, these unions are certainly of the greatest importance in this connection.

§ 5. THE IMPORTANCE OF THE CO-OPERATIVE DAIRIES, FROM THE ECONOMIC, SOCIAL, AND EDUCATIONAL, POINT OF VIEW.

The co-operative dairies have raised the price of the butter for the farmers by between 40 and 60 öre per kg. In this simple fact is the key to an understanding of their economic and social importance. This difference in price existed, at the beginning of the ten years 1880-1890, between the butter of the large landowners and that of the peasants. The co-operative dairies have caused the difference to disappear, not only by making the peasants' butter as good as that of the large landowners, but it was seen about the middle of the period 1890-1900 at the shows, that the butter of the co-operative societies was superior in quality, and on the market there was a corresponding difference in prices in favour of the co-operative dairies. At the same time, there was a large reduction in the number of estate dairies, which is the best proof of the economic superiority of the co-operative dairies, and shows that they have taken the leading position in the field of dairying.

It was necessary to eliminate the above difference of price in order that the peasants might advantageously combine with those large landowners who were now abandoning the cultivation and sale of grain for stock-raising and the sale of dairy produce and it would not be wrong attribute to the co-operative dairies the principal merit of the progress realised by Danish agriculture in recent years. This progress might be considered from various sides; its best results are seen in the immense increase of the agricultural exports, which has been one of its effects.

The excess of exports over imports of butter, together with milk and cream, calculated, according to the proportion of butter-fat contained, as if they had been converted into butter, was as follows:

Year	Millions of kilograms	Millions of crowns
Average 1881-1885	11.8	22.6
» 1886-1890	24.4	43.4
» 1891-1895	37.8	69.3
» 1896-1900	51.7	98.0
» 1901-1905	74.8	136.4
» 1906-1910	86.5	176.6
1911	94.6	203.1
1912	92.9	207.4
1913	98.6	217.5

Thus the excess of exports over imports in the 30 years since the introduction of co-operative dairying has increased tenfold, a result due to several concomitant causes. In the first place it is to be attributed to the increase in the stock of cows, due to the high prices fetched by butter.

The number of dairy cows was:

1881	898,790
1888	954,250
1893	1,011,098
1898	1,067,265
1903	1,089,073
1909	1,281,974
1914	1,310,268

Of still greater importance was the improvement in the quality of the stock which gradually took place. This, together with more nutritious feeding, led to the result that the yield of milk per cow increased in even greater proportion than the number of cows, that is to say from about 1,750 kgs. in 1888 to 2,621 kgs. in 1913.

Finally, it must be mentioned that there has been an increasing use of margarine in place of the home made butter in the country, which, likewise, has contributed to increase the export of butter.

Together with this increased exportation of butter there was also an increase in the export of pig-meat (bacon, etc.), which in any case must be considered to a large degree as a by-product of the dairies.

The export of pig-meat was:

Year	Millions of crowns
Average 1881-1885	27.4
» 1891-1895	41.6
» 1901-1905	71.7
» 1906-1910	100.2
1911	119.9
1912	145.0
1913	160.3

It has thus increased sixfold.

The change in the character of agricultural production and the immense increase in the production of animal produce have together resulted in changing Denmark from a fairly large exporter of cereals to a large and increasingly large importer of cereals and cattle foods, and this fact should not be lost sight of this in our estimate of the economic importance of the co-operative dairies for Denmark. But the following table will show that this increased importation is far from keeping pace with the increasing export of animal produce, and that the result is an increasingly large excess of exports of agricultural produce over imports of agricultural produce.

Excess of Exports over Imports, compared with the Excess of Imports over Exports, of the Principal Classes of Agricultural Produce and Agricultural Requirements.

	Excess of Exports over Imports			Excess of Imports over Exports			Total Excess of Exports over Imports
	Livestock	Food Stuffs of Animal Origin	Other Food Stuffs	Cereals	Cattle Feeds	Seeds and Manure	
Millions of crowns.							
1881-85 (average) . .	49.8	29.4	5.3	3.1	8.1	5.8	73.6
1886-90	34.5	63.7	5.8	10.3	13.4	6.3	74.0
1891-95	33.4	105.4	4.6	24.8	15.5	7.1	96.0
1896-1900	19.2	161.8	4.1	46.4	19.8	4.8	113.1
1901-05	28.4	229.2	4.1	61.2	39.0	10.4	151.1
1906-10	35.1	297.8	7.1	77.8	57.7	16.6	187.9
1911	50.1	359.4	11.2	78.7	61.7	17.4	262.9
1912	45.7	402.5	15.4	101.3	75.8	22.2	264.3
1913	58.7	427.1	12.8	101.7	82.3	21.8	292.8

If the co-operative dairies have been of enormous economic importance for Denmark, this, considered from another point of view, is only a proof that they have accomplished their social work brilliantly. For this progress of agriculture and agricultural exportation only became possible through the association of the co-operative dairies with the co-operative organizations, which resulted in the small producers — the great mass of the rural population — sharing in the advantages of the large farmers, and that in a country and at a time when this had become for the small farmers in the most literal sense a condition of their existence.

How far this might have happened under other conditions, is perhaps still open to discussion; it is at any rate certain that the dairies worked in common (*Fællesmejeriene*) would have required a considerable time to bring about the change, and during this period of transition there would have been a crisis that would have made Danish agriculture languish and would have been fatal for the small farmers. Indeed the co-operative dairies could not prevent rural land falling in price, as a result of the lower prices of grain, but they protected the farmers, and particularly the small holders, from the baneful consequences, as they rendered possible a kind of production, for which the economic return of the soil was, of somewhat less importance and livestock improvement and dairying played the most important part; so that the fall in price of the land meant no corresponding decrease of income for the farmer; on the contrary,

in the case of the very small farmers, it tended to increase. The progress which the co-operative dairies brought about both in respect to dairying and to agriculture generally, and which still further extended and secured the position the small Danish farmers had obtained, could have been realised under no other system, for it was for the most part the result of intense collaboration between the co-operative dairies, such as cannot be imagined among competitive undertakings, or was based on relations of confidence between the dairy and its suppliers such as private business undertakings cannot create.

To this it must be added that the co-operative dairies played an important part as precursors and examples for the numerous co-operative associations formed in other spheres, sometimes also giving them direct support; we must specially mention in this connection the co-operative bacon factories and feeding-stuffs societies.

Hence the co-operative dairies may claim the chief merit for the fact that the small farmers were placed in a position to obtain also in other departments the economic and technical advantages enjoyed by the large farmers working on industrial lines.

From the social point of view, the co-operative dairies have contributed directly and indirectly to protect the numerous class of small farmers against a disastrous crisis, and assure their economic independence and comparative welfare. At the same time the progress accomplished has been so great that the smaller farmers in the future will have a prominent position not only in agriculture but in industry and social life generally.

In this last field it is not the least merit of the co-operative dairies that, in common with other associations, they have done much useful educational work among the country population. Through the claims the co-operative societies makes on the intelligence and capacity of the population, they have become an educational factor of the first importance, as well as by the fact that they encourage the population to associate voluntarily and effectively and submit to a common organization. In this respect, the co-operative movement is certainly in close relations of mutual influence with the educational theory that has found expression in the Danish popular high schools and agricultural schools. Both these classes of schools for young men are based substantially on the same principle, and attempt to realise the twofold object of raising the moral and religious tone and increasing the vitality of the people, and also of developing their intellectual and technical capacity. To these schools is due a great deal of the merit that the co-operative movement has developed so rapidly and so brilliantly, as they provided the educational foundation, but, on the other hand, the co-operative movement has been one of the principal causes of the desire for education which has made itself in the Danish country population, and is apparent in the increasing number of young men who enter the high schools every year.

FRANCE.

AGRICULTURAL LABOURERS' TRADE UNIONS ACCORDING TO A RECENT PUBLICATION.

On the eve of the outbreak of the European war, Mons. A. Souchon Professor of Law in the University of Paris, published an important work entitled *La crise de la main d'oeuvre agricole en France* (1 vol. gr. in 8vo., pp. 552, Paris, Artur Rousseau, 1914).

This work, to the preparation of which much time was devoted, was doubly important, because M. Souchon had for a long time directed the studies of his pupils into the same channel. From this many interesting essays resulted, for instance that entitled *La protection légale des ouvriers de l'agriculture italienne* (Paris, 1913) by M. Léon Audoly. M. Souchon's book utilises and condenses all previous works on the subject, thus dispensing the student from the necessity of consulting them, though the author never fails to give the names of his authorities. He gives a complete summary of the condition of the question on the eve of the European war, *i.e.* just at the moment when this question must be considered as entering upon a new phase.

M. Souchon's work is in four parts: rural depopulation, agricultural strikes, the life of agricultural labourers, and their protection by law. We shall here speak only of trade unions among agricultural labourers.

§ I. WOODCUTTERS' SYNDICATES.

Till the end of the 19th century the question of trade unions had never arisen among French agricultural labourers, and it seemed improbable that it would ever arise, because these labourers were isolated from one another, leading the same life as their employer, working with him and eating at his table. It was among the woodcutters of the central parts of France that the question first attracted attention. The position of these woodcutters seems to be somewhat peculiar. According to Mons. Souchon they are only employed in the woods for a part of the year, unlike those of other districts, for instance the Côte d'Or and the Vosges. During the months of November and December they are occupied in felling trees, and for a fortnight in spring in barking them. This trade not being exer-

cised continuously, a woodcutter must have other means of support. He is generally also an agricultural labourer. But in some woods especially those of Cher, factory hands or village tradesmen out of work are sometimes employed, not however by the proprietors, but by dealers in wood,—middlemen who date their origin from the later years of the Second Empire. Labour contracts between these dealers and the woodcutters are made after a special form according to an ancient custom. The employers do not select their workmen, but the dealers make known in the neighbouring villages the day on which the wood-cutting is to begin, and at the appointed time workmen from the neighbourhood present themselves and inquire what wages are to be paid. These are always task-wages, and as soon as the amount is stated by the dealers anyone may come and set to work, claiming his share of payment at the end.

Now, as M. Souchon remarks, this plan may easily give rise to disputes. In the first place the woodcutters have a confused idea that the forest is their property by a sort of natural right, and in the powers delegated by the proprietors to the dealers, they are disposed to see an encroachment on their rights. Besides this, the character of middleman assumed by the dealers is not calculated to attract the sympathies of the workmen. Lastly, the labour in common brings together many men of different ideas among whom there are often factory workers already familiar with the syndicalist movement, thus adding to the causes of agitation.

Towards 1891 there was a considerable depreciation of wages, due in the first place to the great number of dealers and the consequent competition which obliged them to pay high prices to the proprietors and to recoup themselves by economising in wages. In the second place there was less demand for wood, owing to various causes, but chiefly to the decline of merchant shipping and the substitution of iron for wood in naval construction. With regard to wood for burning, its consumption was reduced through the competition in new appliances in which coal was used.

The insufficiency of wages led to strikes, the first of which were not planned by any pre-existing organisation, but during the cessation of work syndicates were constituted. In June, 1892, fifty syndicates in the department of Cher alone met in a congress, and claimed to represent more than 6,000 workmen. In the course of two seasons, 1891-92 and 1892-93, the workmen succeeded in having their wages nearly doubled.

The agitation spread to Nièvre in 1892 and there also resulted in the constitution of syndicates.

But here the movement stopped, for reasons well explained by M. Souchon. Of these, the first was the very result obtained, so far beyond the highest hopes that the workmen did not see the necessity of continuing to belong to associations which seemed to have no further object. Besides, the syndicates had enemies even among the woodcutters, who made an active propaganda against them, encouraged by the proprietors. At first the difficulties directly affecting the dealers in wood seemed to have no interest for the proprietors, but they soon perceived that the strikes would naturally increase the cost of cutting the wood and

thus diminish the offers of the dealers, while the syndicates of woodcutters had proclaimed their intention to extend their demands to all agricultural labour. This was enough to cause much uneasiness and to evoke a desire for self defence. But soon the syndicates had difficulties from within with regard to subscriptions. In summer when the workmen were no longer in the forest they neglected to pay their quota, and when the season came round again they found it hard to pay up their arrears.

Thus the syndicates rapidly disappeared, but in 1902 under the auspices of the General Labour Confederation, the Labour Exchange of Bourges organised a congress of woodcutters at which the foundation was laid of a *National Federation of Labourers on the Land*. At present this federation comprises 170 syndicates, of which the greater number belong to the central forests (66 in Cher, 26 in Nièvre, 15 in Indre, 15 in Yonne, 14 in Allier). There are also groups belonging to the federation in the most widely separated districts, and except Morvan and the Vosges, there are few forest districts unrepresented.

The woodcutters' syndicates acted not only through strikes but also tried to work by appealing to the force of the law and by the extension of co-operation, but M. Souchon believes that these efforts were merely secondary. They sought legal intervention to secure the extension of the laws respecting the labour of women and children to agriculture, to claim for labourers in the State forests the application of the decrees of the 11th October, 1899, respecting State contractors, and to obtain the appointment of agricultural experts. The syndicates have often demanded that the State should manage its own forests directly through its own agents, the exclusion of dealers facilitating the formation of co-operative societies of woodcutters. The woodcutters' syndicates have in fact taken up the question of co-operation, and in 1905 at their annual congress, they drew up a vast programme of co-operation for consumption and for production on a basis of communism. Souchon considers that hitherto the results have been very small. With regard to consumers' co-operation he refers to the *Fraternelle* of La Guerche, and the *France Bâcheronne* of Jussy-le-Chaudrier. As to production, only one interesting effort has been made, that of the syndicate of *Chateauneuf-Val-de-Bargis* in Nièvre.

Every year collective contracts are drawn up in the following manner. Three or four months before the wood-cutting begins the syndicates send delegates to their various districts to bring back a list of prices for all the work to be done. This list is examined by the bureau of the syndicate and serves to fix a tariff, but each group has its own tariff according to the differences in labour conditions.

These tariffs are made known to those concerned by means of placards, insertion in the local papers or notifications to proprietors, among whom the State is included. Dealers are thus informed of the claims of the workmen before purchasing standing trees from private individuals or sending in a tender at a public auction. When the time has come to set to work the employers make their offers, usually lower than the tariff of the syndicate. After a discussion more or less prolonged, a collective agreement is made, the

clauses of which are not generally confined to the promises made by the dealers of a fixed sum for each job. The syndicate is accepted as the contracting party with whom to treat for the execution of the work, and with whose delegates the measurements must be made. Sometimes the syndicate even undertakes the responsibility for certain malpractices, such as the felling of trees that ought to be left untouched, or the encroaching on adjoining property.

Souchon also shows that the obligations of employers are often very heavy. For instance the syndicates desire to have none but their own members in the forest. But as we have seen, the wood-cutting is open to all comers so that the dealers cannot be required to exclude non-syndicalists. But it is pointed out that the increase of wages being due to the efforts of the association it would be unjust that workmen who have given it no assistance should share the advantages. Therefore the dealers must pay the non-syndicalist according to a lower tariff and hand over the difference to the syndicate. The amount thus saved is usually considerable, often rising to 15 per cent. of the wages, and imposing on non-syndicalists a heavy fine, the prospect of which is an indirect method of recruiting.

The incontestable effect of the action of the workmen in raising wages could not continue unchecked.

In the first place it shortened the forest season. Formerly there was work for the woodcutter in the forest for two months of each year, but for the last fifteen years there has been work only for four or five weeks because the time occupied in cutting down trees is now in many places reduced by one half. One reason for this is that the high wages attract a larger number of workmen and the work is therefore finished sooner, and another reason is that the cutting takes place less frequently. When the forests of Central France belonged to individuals the trees were cut down about every 15 years, now the period tends to be prolonged to 20 and 22 years. Thus the diminution of work for wood-cutters, though no doubt partly caused by economic conditions affecting the price of wood, is also owing to the action of the syndicates in raising the cost of labour.

The business of barking the trees, which yields to woodcutters the highest wages, is in somewhat the same condition. Twenty years ago all the proprietors dealt in bark, but of late the price of oak bark has continually diminished, chiefly because of industrial changes which have introduced new methods of tanning. Owing to the exactions of the syndicates the bark trade now yields no profit, and the proprietors are giving it up.

The syndicates try to exclude women and children from work in the woods. Formerly the woodcutter was aided by his family in accessory tasks. But as the demand for adult male labour was thus lessened, and a lowering of wages was likely to follow, the trade unions naturally opposed the custom, but could not abolish it without provoking much recrimination and introducing changes often burdensome to the families.

At length the associations of working men found themselves opposed by strongly organised unions of employers such as the *Syndicat du Centre*

and the *Syndicat des propriétaires du Nivernais* described by M. Souchon. The first, dating from 1903, comprises the proprietors of a great wooded district near the junction of the Allier and the Loire, from 25 to 30 kilometres in length. Here the syndicate has been accepted almost unanimously, because a conflict with it would deprive the inhabitants of employment, and oblige them to leave their homes. It has used its power systematically and has obtained considerable results. Unlike other districts, for instance Nièvre, it refuses agreements with the workmen. Its object is to give the dealers the means of dictating reasonable terms compelling them if needful to act with the energy indispensable in the interests of the work. With this view the syndicate has taken as a basis the wages of 1907, not attempting to go back on the increase then obtained, but merely to arrest a rise. But it has not adopted a uniform tariff, because the work has many different aspects, according to the situation of the woods and the age of the trees. Every year in the month of June the proprietors send to the secretary of the syndicate a list of the woods which they propose to cut down in the autumn. A commission composed of proprietors and dealers visits the woods named, and fixes the amount of the wages for each kind of work. The syndicate meets at the end of August and sanctions the tariff which must not again be altered, and must be accepted by proprietors working on their own account. If a proprietor should sell his trees he must insert a clause in his contract obliging the buyer to have the work done at this rate, with heavy fines in case of breach of contract. The proprietors, foreseeing that workmen may be tempted to boycott a certain wood in order to frighten the owner and detach him from the association, reply in anticipation by an affirmation of solidarity among themselves: "Should the trees which are to be felled remain standing after the 15th February through the refusal of the woodcutters to accept the tariff of the commissioners on the terms of the syndicates, no work shall be begun the following autumn within a radius of 4 or 5 kilometres from that wood till the felling is begun and going actively forward." It may be added that within its own sphere the *Syndicat du Centre* seems to have acquired control over the forces of the workmen and to have imposed its will upon them within certain limits.

The *Syndicat des propriétaires du Nivernais* has its headquarters at Nevers. It comprises a certain number of sections, the limits of which are determined by uniformity of cultivation, each section being independent of the others. Each may fix within its own limits the wages to be paid each season. Above them is a council of five members, to which may be added all the presidents of sections, with the duty of guiding concerted action. This syndicate has one function which is extending and growing stronger, that, namely, of ensuring advances of money to those of its members who may be in need. To facilitate this it has founded a mutual credit bank, and it is planning co-operative societies for the sale of forest produce. The object of the mutual credit society is to lend money to its members under the ordinary conditions of agricultural credit. The co-operative societies for cultivation and sale have some curious regulations. They give to every member "the right to bring to the societies either the

standing trees or the produce." The co-operative societies may work on their own account or sell to a dealer. To the proprietors an immediate price is guaranteed when they have not been able to have the trees felled.

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M. Souchon has also given particulars of two other branches of the wood-cutting industry, that of the making of hoops for casks, the *jeuillard*, and that of the *resinard* or collecting of resin.

The hoops are made from chestnut-wood and associated with this occupation is that of the cutting of stakes of all kinds for vines, etc. The principal centre of this work is in Haute-Vienne, Dordogne and Corrèze especially in the districts of Saint-Yrieix and Nontron. There are about 2,500 men employed, and these, as in the woods of Nièvre and Cher, work in the fields as well as in the forests where they spend about eight months of the year (from October to June).

Increasing difficulties hamper this industry. First ravages of the phylloxera diminished the demand for casks; next, iron hoops were introduced which last four times as long as those of wood. A lowering in wages followed and led to the formation of workmen's syndicates of which there are now more than 150 divided into twelve groups. These syndicates are not independent of each other, but form the *Union ouvrière des chambres syndicales des jeuillardiers de la région de Saint-Yrieix et du Centre*. Since 1900, they have succeeded in raising wages 40 to 50 per cent. They also include in their scheme a benefit system. In 1907 the syndicate of Saint-Yrieix, notwithstanding very precarious resources, promised a sum of 15 francs with an addition of three francs for each of his children to any member whose habitation had been destroyed by fire. Also to the demands of these syndicates is due the establishment of a council of experts in the district of Saint-Yrieix. We shall now describe some attempts at co-operative production.

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The condition of the resin collectors in the vast pine forests of Landes is very different. Besides their employment in the forests for the greater part of the year, namely, from February to October, they have other sources of gain, one being small agricultural holdings, sometimes as proprietors, sometimes as tenants, generally as metayers. To understand their economic situation, we must be acquainted with the amount of their wages and the proportion of the produce to which they are entitled if metayers. According to M. Souchon, their condition in 1906 before the first strikes was as follows.

The resin season may produce about 600 francs, to which must be added wages averaging from 3 francs to 3.50 per day during the three months

of the felling. The conditions of agricultural metayage vary according to the district, the commune and even the holding, as we may see in Marensin (a coast region to the north of the department of Landes), the Grande Lande (part of the resin forest farthest inland) and the Born (a coast region to the south of the department of Landes). In the last two districts the customary rule is equal division with only a small payment in kind of the part of the metayer. In the Marensin the metayer usually receives more than half of certain products. Sometimes this is three-fifths, sometimes three-quarters, sometimes two-thirds of the crop of wheat, maize, beans or oats, and the profit arising from cattle is alone divided equally.

Thus, taken altogether, the condition of the resin-workers, even before 1906, was preferable in a great degree to that of the woodcutters of Nièvres and Cher.

At the beginning of 1902, the price of resin, which up to that date had never exceeded 70 francs per hogshead, rose until it reached 120 francs in 1906. For this advance there were several reasons. The wood of the Landes was in great demand for railway sleepers and for props for mines, so much so that proprietors cut down their trees, thereby causing a decrease in resin production. Prices rose also from a trust and from the increased use of turpentine and colophony.

The dearth of resin raised a problem in the matter of wages. Those of the workmen who received half the profits gained considerably, while those who were paid by the job gained nothing. Thus arose complaints, strikes and the formation of syndicates.

In 1885 there was some attempt to establish workmen's clubs, and during the following twenty years occasionally and from various reasons such associations were formed, never, however, being more than of a temporary character. At the close of 1905, at Lit-et-Mixte in the Marensin, the first important syndicate was established. In 1906 all the district and likewise that of Born followed the example thus given. At the beginning of 1907, at Morceux, a first congress of resin-workers was held, 32 associations being represented. From this congress arose the *Fédération des syndicats de fermiers, métayers, résiniers et parties similaires de la terre landaise*. Several claims were formulated by this congress. Its first claim was that of an equal division of produce between the proprietor and labourer, whatever might be the price of the resin, another was that proprietors should employ only members of syndicates.

Other demands were relative to the lands held by metayers who were also resin-workers.

The congress required that at least when he had provided the labour the metayer should have $\frac{3}{4}$ of the harvest in cereals, the whole of the fodder and half of the straw not necessary for use in the farm; payment in kind to be replaced by a payment of 20 francs annually for small farms and 30 francs for larger; no day in future to be gratuitously given to the proprietor, and the work of the metayer on the farm to be strictly defined before being done.

Such demands were certain to produce conflicts and in 1906 strikes

began. From the end of 1907 throughout the whole region collective contracts prevailed of which although the clauses were far from uniform, all had some common features. To disentangle them, there must be distinction made between wages for the resin-work and payment by participation in the profits of the farm. With regard to the first it seldom happened that the syndicates obtained without some reserve, an equal division of the profits of the resin-work. More frequently a special arrangement was made. It was understood that the shares should be equal up to a certain price, beyond which the share of the worker was to be reduced either to $\frac{1}{4}$, or to $\frac{1}{3}$. There are various other clauses in the greater number of agreements. Thus, almost always, we find the question of the carriage of the resin to the factory. Generally the expense of this carriage is equally divided between the workman and the proprietor up to 1.50 fr. or 2 fr. per hogshead; beyond this price, the payment falls on the employer. Sometimes also the employer pays the total sum when the price has not been fixed, equal division being made only when it exceeds the above mentioned rate. Several syndicates have also obtained the right of planning for the work of the year from the month of December or at the furthest from January. Some have even exacted from the proprietors a promise to exclude all non-members of syndicates, but this is very rare. Under the conditions of agricultural tenure a difference is made with regard to the metayer who uses the proprietor's team and one who does not. In the first case he receives half the profit; in the second he receives three-quarters. In many instances there are clauses for the suppression of payments in kind and for statute-labour to be replaced by payment in money.

In the majority of cases all the straw is required for the farm; if there should be a surplus, it is to be divided in the same proportions as the wheat. Many contracts grant the metayers the wood used as fuel and sometimes even that for the working of their threshing-machines.

The tendency to facilitate matters is undoubted, and according to M. Souchon this is due both to the proprietors and to the resin-workers. There are also mixed syndicates. The earliest of these, founded in 1907, is called *L'Union syndicale des propriétaires et résiniers de la commune d'Onesse-Laharie*. Its success will be recognised in the fact of its having formed a pension fund of nearly 100,000 frs. from a light tax on every hogshead. The proprietors of Onesse-Laharie have besides made ample concessions to their workmen, for by the rules of their association the principle of equal division prevails in every case with only a small indemnity to proprietors for supplying pots and hooks when the price of the hogs head exceeds 60 frs. At Soustons, soon after, there was founded the *Société co-opérative et philanthropique à capital et personnel variables*. This is a true mixed syndicate since it announces that its aim is "to safeguard all interests pertaining to the forests of the commune, and to facilitate the relations between the proprietors and resin-workers, maintaining them in harmony together." The conditions of wages are nearly such as we have described.

The workmen's federation however continues to exist, and its congresses are regularly attended. At that held at Castets, in December, 1912,

seventeen adhering syndicates and four independent groups were represented. Attention was given entirely to State forests. Some years ago the workmen obtained numerous favourable changes in the administration of the forests but their ambitions are not yet satisfied and they aim at bringing all the woods of the district controlled by the Forest Department into line. To this the Department continually makes objections, giving as a reason that there are not sufficient workers nor sufficient credit for success. They say besides that the State would be much burdened by the necessary purchase of working materials (casks, pots, hooks, etc.) and embarrassed in the sale of the resin which is injured by long keeping.

State forests would be worked under contracts of considerable importance which would be disadvantageous because of the many facilities offered for combination among buyers and the resulting loss to the Treasury. This system would give only half the profits to the workmen, with which they would probably be dissatisfied.

§ 2 VINEDRESSERS' ASSOCIATIONS.

Vine culture, after that of textile plants, has always been in France the branch of agriculture most remunerative to the cultivator.

Since the invasion of the phylloxera and the replanting of the vineyards, requirements for successful culture have greatly increased, one, as an instance, being the use of sulphur and of sulphate. There is more work to be done, and that the farm servants may not suffer in consequence many day labourers must also be employed. M. Souchon points out the distinction between work in vineyards and other work.

The vineyard labourers have a hard time. They work from sunrise till sunset with an interval of three hours for rest. This represents twelve hours per day at the beginning, becoming less however as the days shorten. Sundays are not exempt, and the only days of rest are those when all work is prevented by rain. Some years ago time-wages were the rule, but during the last seven or eight years attempts have been made to introduce task-wages. The wages vary in character. Vinedressers strangers to a locality are in the first place lodged by the proprietor who employs them. They sleep in a loft on a little straw, but such meagre hospitality can scarcely be considered remuneration. Sometimes their travelling expenses are paid and they are given their evening meal and wine. But their payment is generally made in money. Women grape-cutters receive but half the sum paid to men, but the men are expected to carry the grapes.

For both men and women payments differ with seasons, districts and even vineyards, but on an average, men receive four francs per day and women two francs per day, a rate which seems sufficient to allow of some saving by the recipients who for the greater part are mountaineers accustomed to lead a very frugal life. Yet they often spend much during their stay of three weeks or a month in the vineyards, and so have but little to take home.

The day labourers who live in the country and work there all the year round are very differently situated economically and socially according as they are or are not proprietors and according to the size of their holdings. Those who possess perhaps a bare hectare of land cannot have such profit. Their crop is small from want of needful capital, and their wine impaired by bad cellarage. Always in need of money they sell at a disadvantage. Sometimes also they are indebted to a neighbour for help, — for the loan of a horse, or for implements. Therefore it is not surprising to find in case of a strike that these small proprietors range themselves on the side of the workmen rather than on that of the employers.

With a larger holding the situation is less difficult. The owner of a vineyard of two or three hectares generally owns a horse, which is to him a source of much benefit. In a large number of cases, the proprietor shrinks from the expense of keeping a horse. When he has need of one he applies to his neighbours and pays relatively highly for the service rendered. However, the holder of from two to three hectares is no longer obliged to work for others, and if he does so occasionally he is usually well paid.

Other day labourers often remain connected with the same property for months and even years but not continuously, for they are only called on when there is extra work to be done. M. Augé-Laribé, quoted by M. Souchon, calculates that such a workman is generally employed 230 or 250 days annually. To them the care of the more delicate work is entrusted. The men are employed in pruning, grafting, sulphur and sulphate spraying of the vines: the women at easier work, such as the tying-up of the vine shoots or, at the time of spraying, the re-filling of the cans. As the women are so poorly paid, proprietors are often tempted to employ them instead of men. For this reason, the men protested energetically against the employment of women and often succeeded in preventing it.

Ordinarily, to get through the tasks allotted them more quickly, the vinedressers unite in groups called *bricoles* led by a chief workman called the *moussègne*. This collective work, like that of the woodmen in the forests, has much aided the development of syndicates.

The working hours of day labourers in the vineyards are short, being seldom more than eight. Their wages kept constantly rising from 1820 until the appearance of the phylloxera, and then from 1875 they began to go down, until in five or ten years they reached a proportion of about 50 per cent., and they would have been lower still but for the exodus of many of the workers. With the replanting of the vineyards better times came, but no years have ever been comparable to those between 1850 and 1875 for prosperity. In 1900 and the years following there was another fall in wages owing to the failure in demand. In April, 1903, hard frosts destroyed the vintage of the year, and employers dismissed many of their workmen, while they abruptly cut down the wages for the others by 30 or 40 per cent. In Hérault M. Souchon believes that he is near the truth in stating that in 1913 the ordinary daily wages in winter were 2 fr. 30, and in summer from 2 fr. 50 to 3 fr. 50. These figures seem very low when we remember that there are frequent intervals in vineyard work. Besides, the southern

labourers generally live in the cities or large villages, thus losing the advantages of a completely country life, one of which is the profit made on pig or poultry rearing. Their rent too is high, being calculated by M. Augé-Laribé at an average of 80 to 120 frs. Lastly, the continual cultivation of one kind of crop is prejudicial to the interests of the south through the risk of over-production, and it is also one cause of the higher cost of living. Bread, for instance, is a much heavier item of expense to the vinedresser in the south than in any other part of France.

On the 15th August, 1903, a first congress of vinedressers and labourers held at Béziers comprised 31 syndicates. In the following November the first strike of any importance was declared, and resulted much to the satisfaction of the workmen. In January, 1904, agitation increased, spreading from Hérault to Aube and Pyrénées-Orientales, and in April and May of the same year to Bouches-du-Rhône. According to the statistics of the Labour Office, more than 150 strikes of vinedressers took place between November, 1903, and May, 1904, affecting about 50,000 strikers. From a strictly economic point of view the workmen obtained considerable advantages, of which the chief was an increase in wages. But it is difficult to know the exact importance of the results of the congress, because the movement has entirely failed as to unanimity in its requirements. M. Augé-Laribé shows that usually the increase of wages varied, carrying them towards what they were before the frosts, from 25 to 50 or even 70 centimes per day for the same number of hours or even for fewer hours. At Montpellier and Arles the strikers seem to have been most successful, for in both these cities the proprietors engaged to pay at the rate of 0.50 per hour, and this afterwards came to be the payment claimed by the syndicates. In Pyrénées-Orientales wages rose to 3 francs per day of six hours and 3.50 frs. for a day of 7 hours which gives results equivalent to the tariff proposed by the syndicates with a few differences as to hours.

In Aube where wages were always lower, the new prices were generally 2.50 francs per day or 35 to 40 centimes per hour.

The question of wages was not the only one under consideration, — that of the evils resulting from the long intervals in the work of the vineyards calling for special attention, and the syndicates proposed various plans as a remedy. They also proposed restrictions upon the employment of outsiders, of women and of children, and prohibition of extra hours and of work by the job, — all with a view to retaining the work for themselves. But on these points success did not follow as in the case of day labour, and the little obtained was very incomplete. At first many agreed to the prohibition of women's work, except for the replenishing of the sulphur cans, and some of the proprietors agreed to employ workmen of the commune. It was invariably specified that extra hours should be paid at the same rate as the daily work, a notable improvement, as proprietors had hitherto expected extra work on pressing occasions to be done either gratis or for a very small remuneration.

Unhappily these good results were very precarious. At first the proprietors had been taken by surprise and they soon sought means of retalia-

tion. The judicial forms stating the agreements were generally very inexact, and a strike was seldom ended by a true collective contract. Generally the workmen were satisfied with a written minute, trusting for modifications to local usages, with nothing to show that the parties were bound by any legal obligation. This proved to be the germ of new conflicts which were not slow to break out.

A second congress of southern workmen was held at Narbonne on the 13th, 15th and 16th August, 1904. At this congress 107 syndicates were represented: 52 from Aude, 41 from Hérault, 11 from Pyrénées-Orientales, and 3 from Bouches-du-Rhône. The members seemed very much struck by the diversity of claims and the results obtained since the last strikes. Without taking into account that the customs and economic conditions are not identical in all the vine-growing districts of the south the congress laid down a uniform system of regulations for all. But while this programme was far beyond the results already obtained it must be acknowledged that it was in great part a failure. Since the winter the demand for wine had been small and the proprietors felt the impossibility of employing many workmen under the conditions imposed upon them. And partly from necessity, partly in retaliation, they dismissed many of the workmen they had engaged, and left hundreds of day labourers without work. When they consented to re-engage them, it was at a lower rate.

The question for the syndicalists was then to insure respect for the agreements already made, and to obtain new concessions, unattainable without further struggles. So the question was put to the congress at Narbonne, whether the time had not come for a general strike of vine-dressers. The idea was approved, but referred to the Federal Council which proclaimed the strike on December 1st, 1904.

It proved a failure, and was fatal to the prestige of syndicalism in the country districts of the south. A rapid diminution in the number of syndicates and syndicalists was soon observed. In 1904 the Vine-dressers' Federation comprised 145 members and 14,084 subscribers; the year 1905 closed with 157 syndicates and 5,551 members; the year 1906 with 143 syndicates and 3,366 members, at the end of October, 1907, there were only 109 syndicates and 1,721 members.

At the same time, the surviving organisations seemed to lose interest in the movement. We have seen that at the congress of Béziers in 1903, 31 syndicates were represented, and at Narbonne 107 in the following year. At the congress of Perpignan in 1905 only 77 organisations were represented and this number fell in the following year to 56 at the congress of Arles. In 1907 at another congress of Béziers, the syndicates were still less active. So little zeal did they show that the time of meeting was put off and when convened for the 2nd and 3rd November only 43 syndicates were represented.

According to M. Souchon, there are many reasons for the diminution of the syndicalist movement in the south since 1904. Some of these must be sought in the heart of the trade unions. Many of those who joined them at first were attracted by the excitement of strikes, and if these were brought to a satisfactory conclusion, it seemed to the men that syndicates could be

of no further use. Among the syndicalists, dissensions, sometimes on political questions, sometimes regarding the subscriptions however small they might be, frequently occurred, precluding any effectual action in common. To these causes of decline may be added the economic conditions of vine-growing in the south of late years. When demand fell off labourers were less needed. In prosperous seasons great care was taken of the vine-stocks, and many improvements were tried, but when a crisis occurred the proprietors reduced their general expenses as far as possible, even at the risk of diminishing production. At such times the labourers begin to understand that there is no opposition of interests between their employers and themselves, and they are more disposed to union, especially in the desire to combat fraud. At the congress of Narbonne, one of the earliest, this question was debated, and since that time the workmen have more than once claimed the honour of having been among the first to oppose fraudulent dealing. In 1905 the syndicate of the small wine-growers of Béziers took the initiative in convening another congress, to comprise not only wage-earners, but also vine-growers of all classes. About 40 workmen's associations were represented, and their delegates met together with those of syndicates of employers or mixed syndicates and of chambers of commerce and other civic organisations. The congress appointed a *District Committee for the Protection of Vinegrowers*. Other similar committees, were nominated and the result was the *Vinegrowers' General Co-operative Society* with branches in nearly every commune.

This is an immense mixed syndicate, the object of which is "to study the interest of its members, whether economic or social, connected with vine-growing or agriculture." To attain this, appeal is made to all willing persons. It calls upon "each of its sections to establish and maintain among its members relations of friendship, dignity and mutual justice." It states that its aim is "to exercise a happy influence over the relations between capital and labour, in the hope that the labourers will take into account the solidarity of the proprietors with regard to them."

This confederation has had considerable success, and M. Souchon regards it as the chief cause of the decay of the original syndicalist movement.

But other causes have contributed to the same result. Southern workmen are less tempted by strikes, because much can be obtained without them. Since the increase in the price of wine many proprietors willingly pay their workmen 50 centimes per hour, a sum formerly regarded as a maximum, and there are often special indemnities, either on account of the high cost of living or for performing specially hard work. Another cause is that the small proprietors are rapidly increasing in numbers. Before the phylloxera crisis they were very numerous, but owing to that calamity they almost entirely disappeared.

In spite of the more systematic character of the new mode of cultivation a labour conquest of the land was begun, but interrupted by the frost of 1903 and still more afterwards by a failure of demand. At the present time subdivision is reappearing. The employers are more energetic, and though they have no organisations comparable to those of the forest prop-

rioters described by M. Souchon, yet more than once strikers have been met by a well concerted opposition. In 1912, at Ouveillan, in Aude, there was an attempted strike. The employers collected all the men who were willing to work, and formed them into strong gangs, thus frustrating all efforts at intimidation. Then they hired all the habitations in the village as the leases expired, and succeeded in forcing the ringleaders to go away by refusing to take them as tenants. At Thégan-les-Béziers, in Hérault, there were strike-breakers who went in succession to all the lands abandoned by the workmen. At Vauvert in Gard there is a company for mutual insurance against *sabotage*, which seems to have been the means of considerably diminishing the number of acts of violence. At Marsillargues in the *arrondissement* of Montpellier harmony was restored through the constitution of a co-operative society for the warehousing and sale of wines. All the workmen proprietors have an interest in joining it to secure a better sale of their produce, and they are thus withdrawn from the workmen's syndicate which moreover does not admit any members of the co-operative society. Doubtless, these are only isolated facts, but M. Souchon does not hesitate to regard them as symptomatic of a new era.

Except in the south there are few syndicates of vinedressers. But in Marne some local syndicates arose in 1911, more especially at Hantoilliers and Cumières; and towards the close of the same year a *General Syndicate of the Working Men of Marne* united in itself all the existing organisations, and was about to increase their number.

At a congress held at the end of 1912 at Cumières 40 workmen's associations were represented, of which the total number of members was calculated at 1,400. Strikes soon arose, but they were neither numerous nor serious. In more than one place, without any cessation of work, collective contracts were made, especially at Rilly and at Ay. In these agreements the workmen did not obtain all that they claimed: for instance they demanded equal wages for men and women, the abolition of piece-work, and a uniform rate of wages for the whole district.

Nowhere have they obtained their full programme, but daily wages have been increased. For summer work, except for the vintage and certain particularly delicate tasks, the usual rate, up to the last few years, was from 3 francs to 3 francs 25 for men and 2 francs to 2 francs 50 for women. This rate has been more than once exceeded in new collective agreements.

But M. Souchon does not believe in a brilliant future for workmen's syndicates in Marne, because the number of small proprietors is too large in a department where 15,000 hectares are divided among 15,000 possessors. And if we remember that at least 3,000 hectares belong to large commercial houses which for several years have been making important acquisitions, the figures given must mean minute subdivision.

The very small proprietors in Champagne at certain times have many grievances. The cost of cultivation is very high, rising when the crop is good to a minimum of from 3,500 fr. to 4,000 fr. per hectare, and often higher. But low prices and poor crops do not ensure the cultivator against a recurrence of this high rate. Now the vine is capricious and prices are

regulated by the higher branches of commerce. This condition of things led in 1902, to the creation of a *Fédération des syndicats de la Champagne* with an official organ entitled *La Champagne Viticole*. The aim of this federation was at first to check fraud, and to create district banks to help vine-growers who might be obliged to sell at a disadvantage. But it also seeks to promote "l'entente cordiale through trade by sending a commission at least a week before the vintage to treat with buyers as to the price of the crops. This commission is to be composed of one delegate for every large crop." In this there is the germ of a combine of a sort treating with the large houses on terms of equality, and ending their economic predominance in buying, but hitherto the attempts at negotiation in order to arrive at a collective agreement have met with but little success.

To the workmen, as to the large firms, *La Champagne Viticole* willingly extends the olive branch. Its editors continually affirm that the wages are insufficient, but at the same time they try to point out the difficulties under which small proprietors labour. They preach patience to the one and generosity to the other. But are their appeals heeded? In any case it is certain that the working class movement among the vineyards of Champagne may thus far be considered of secondary importance.

§ 3. THE DISTRIBUTION OF THE SYNDICALIST MOVEMENT.

Besides treating of woodcutters and vinedressers, M. Souchon has turned his attention to the metayers of the Bourbonnais, who at the close of 1905 founded a *Fédération des travailleurs de la terre et parties similaires de la Région bourbonnaise*, now dissolved, and to the agricultural labourers of the Paris district who constituted, in June, 1907, a *Fédération des ouvriers agricoles de la Région du Nord* which was dissolved in 1910. Only one, the *Fédération des ouvriers de l'horticulture* still retains its importance, especially in Paris and its suburbs.

Finally, in the greater part of France up to the outbreak of the European war there had been neither syndicates nor strikes of agricultural labourers. In the west this was true of Brittany, Normandy, Anjou, Touraine, Vendée, Poitou, Charentes and Bordelais as far as the boundaries of the resin country. In the south only those departments devoted solely to vine-growing were affected, and of the whole plain of Toulouse, of Var, Alpes-Maritimes, Vaucluse, Drôme and Bouches-du-Rhône, excluding the Camargue because of its vineyards, nothing is to be said. In the east, Savoy, Dauphiny, Bresse, the Mâconnais, Jura, Lorraine and Champagne have also been untouched. In the north the syndicalist movement did not pass beyond the Paris districts. Lastly in the centre, Berry, Limousin and Auvergne did not follow the example either of the Nivernais or the Bourbonnais, though both were near neighbours.

Passing from this geographical division to a consideration of the question according to occupation, M. Souchon perceives similar restrictions, and

It is remarkable that in country districts, strikes and syndicates have always been the work of specialists, rather than of agricultural labourers in the usual acceptation of the word.

Rural syndicalists are for the most part vinedressers, woodcutters and gardeners. In their ranks may also be found metayers of the Bourbonnais, day labourers of Ile-de-France, and even some farm servants of the Centre, but these form only a small minority in the whole of rural syndicalism.

Even where syndicalism has been most widely extended, it has never reached the whole field. Among gardeners the agitation was especially in Paris. Among woodcutters, Nièvre and Cher alone were touched; in the Morvan and the Vosges there were no syndicalist woodcutters. With regard to vinedressers the syndicalist movement was localised in Champagne, Beaujolais, Hérault, Gard, Aude, Pyrénées-Orientales: it never penetrated into Bordelais or Burgundy.

In all there may be 642 workmen's syndicates in agriculture, forestry, fishing and cattle-rearing, comprising 60,724 members, that is only 2.22 per cent. of the whole number of wage-earners. But this figure is certainly too high, for in a syndicate there are always many doubtful members paying their subscriptions very irregularly, whom there is a temptation to include in the association to give it more importance, but who in reality take no part in its life. Now this occurs more in unions of agricultural labourers than among artisans, because in the country the syndicalists are more scattered, and therefore better able to evade the syndicalist discipline. Besides, as a rule, their wages in money are not high and their habits are more economical than those of dwellers in cities. Rural syndicates, it is true, content themselves with small subscriptions, often only 10 centimes per month, yet in many cases it is very difficult to collect even this, and consequently the number of nominal members is very large. M. Souchon believes that taking into account the continued extension of syndicates of factory workers we may conclude that there are between the two forms of labour great differences which throw difficulties in the way of the extension of syndicalism among rural workers.

ITALY.

MISCELLANEOUS NEWS.

I. — THE ORGANISATION OF THE AGRICULTURAL CONSORTIUM OF GENOA FOR THE SALE OF MILK. — One of the most serious and widely debated questions of the day is that of the milk supply for great urban centres. (1)

In the general rise in the cost of living the high price of milk is felt in a special manner (2) as it is an indispensable article of diet more especially for babies, and the sick and aged. The high price now charged for milk is not only due to the scantiness of the supply as compared with the increased demand, but also to the defective organisation of its collection and sale. It is therefore of interest to study the effort made by an agricultural co-operative society, the *Consorzio agrario* of Genoa, one of the most prosperous and active in Italy, to solve the problem. (3)

The Co-operative Agricultural Consortium of Genoa, established in 1900 with 14 members and a capital of 490 lire, had the purpose common to all such associations of promoting the improvement and prosperity of agriculture and of the agricultural classes in general.

At the start, owing to the inertia and lack of confidence of many and to lack of capital and of assistance, the difficulties encountered were many and serious and the action of the Consortium was necessarily restricted. But little by little the difficulties were overcome and the association gained the confidence of the farmers. The membership rapidly increased,

(1) Most meritorious work has been done in this matter by the *Unione Nazionale delle Latterie Sociali* (the National Union of Co-operative Dairies) which has placed itself at the service of several public administrations for the supply of milk in important urban centres. A start was made in Rome, to which the great co-operative dairy of Soresina (Cremona) daily supplies 10,000 litres. The Union is now negotiating with the municipalities of Cremona, Milan, Pisa, Reggio Emilia, Taranto, etc., with a view to supplying them with the milk needed for local consumption.

(2) See on this subject an article by Maggiorino Ferraris in the *Nuova Antologia* of October 16th, 1915: "The price of milk and the control of the high cost of living in Rome" (*Il prezzo del latte e la lotta contro il caro viveri a Roma*).

(3) The data on this subject are gathered from an article by Gabriele Galliani, president of the *Consorzio agrario* of Genoa, published in the *Nuova Antologia* of October 16th, 1915: "The Milk Problem and the *Consorzio agrario* of Genoa" (*La questione del latte ed il Consorzio agrario di Genova*).

attaining in the course of a few years the number of 500 (it now stands at 900), business grew, and before long the management was in a position to experiment the more important portion of its programme, namely, the sale of members' produce, beginning with milk. The Consortium started on this business at a time when the need of organising the milk trade in accordance with the requirements of hygiene and domestic economy was most urgently felt.

An accurate enquiry had shown that Genoa consumed daily upwards of 40 thousand litres of milk (now increased to nearly 70,000) and that out of each hundred litres brought into the town nearly 87 were of skimmed or separated milk. This milk sold at an average price of 35 centesimi per litre.

As a result of this enquiry the Agricultural Consortium resolved to start the sale of fresh, unskimmed milk, and after making the requisite studies and negotiations it began to do so in 1905, beginning with a contract for supplying those institutions which are most in need of genuine, sound milk the civil hospitals. As the result of patient organisation and propaganda, in which it was powerfully assisted by the Itinerant Lectureship of Agriculture, the Consortium succeeded in inducing its members to devote themselves to dairy farming and to supply all their milk to the Consortium at the price and on the conditions it prescribed.

Where small farms prevailed the formation of co-operative societies for production was promoted and they were provided with adequate means for collecting and forwarding the milk on the most approved sanitary methods; in this way the Co-operative Society of San Salvatore was formed with a membership of thirty small farmers and in 1906 it began to supply the Consortium with upwards of 550 litres of milk a day. The supply constantly increased, so much so that some members of the Consortium, owners of model dairies stocked with cows of first rate breeds, decided to form the Dairymen's Union of Tortona (*Unione-produttori di latte di Tortona*) which offered all the requisite guarantees and obtained a contract with the Consortium which has since been renewed every three years. This contract contains explicit clauses which insure the supply of genuine, sound, fresh milk to the Consortium. The Union undertook to filter the milk when fresh from the cow, and to chill it before forwarding it in special cans supplied by the Consortium. These cans are adapted to long journeys and insure the milk against deterioration. The Consortium also reserved itself the right to have the dairies inspected by a veterinarian of its choice, to take samples of the milk, etc.

The supply was so perfect that the hospitals renewed their contracts, and gradually other charitable institutions followed their example. Thus the sales, which during the first year did not exceed 1000 litres per day, progressively increased from year to year until they attained their present figure of five thousand litres a day. The Consortium was thus able to effect a considerable saving on the cost of carriage.

Having solved the difficulties connected with collecting and forwarding the milk, those involved in its storage and control were next dealt with.

For this purpose the Consortium, in view of the increased sale and the need of facilitating and accelerating the work of distribution, decided to install a refrigerating plant on its own premises, and machinery was acquired for this purpose which could chill and keep at a temperature of not more than one degree centigrade as much as 500 litres of milk a day. But this was soon inadequate to cope with the ever increasing demand for the milk, which grew beyond all expectations, and in 1909 a new and larger plant was installed.

At the same time the Consortium, so as to check the quality of the milk supplied and thus offer a satisfactory guarantee to its customers, opened a chemical laboratory supplied with all the apparatus required for the most careful analyses, the management of which was entrusted to an expert chemist.

As soon as the milk reaches the refrigerating room samples are taken from all the different lots; these are analysed and the results of the analysis entered in a special book and at the same time communicated to the manager of the association.

Samples are also taken from time to time at the different depots so as to make sure that the employees do not adulterate the milk consigned to them for sale.

In spite of the considerable expenditure on labour required for the collection of the milk, and for filtering and chilling it, and of the cost of carriage and handling on delivery, and in spite of the unavoidable percentage of loss consequent on these operations, the Consortium has been able to sell milk to the hospitals at 27 lire and later on at 29 lire 50 centesimi the quintal, a price considerably lower than that paid by hospitals in other cities. It must be noted that the milk pays a municipal tax of 4 lire a quintal. The Consortium fixed the retail price at 35 centesimi per litre, a price which the public was accustomed to pay for skimmed milk. The Consortium has opened 18 depots in the most populous districts of the city, which fully satisfy in all respects the requirements of the population⁽¹⁾.

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2. — THE LIGURIAN CONSORTIUM OF CO-OPERATIVE SOCIETIES FOR PRODUCTION AND LABOUR. — The co-operative labour societies are one of the most characteristic forms of Italian co-operation. Organised amongst workmen, more especially day-labourers and workers in the building trades, they were founded for the special purpose of emancipating their members from subjection to ordinary contractors, and for securing contracts

(1) The Agricultural Consortium of Genoa does not only sell ordinary milk, it has also placed on sale for children and invalids humanised milk, most carefully prepared, and yoghurt. It also sells genuine olive oil, pure cream butter, and eggs, securing in the course of a few years a large custom and playing an important part in the provisioning of the city.

for public works direct from the government or from provincial and municipal administrations. Most of these associations undertake to build and keep in repair roads, bridges and canals, to carry out drainage and irrigation works, land reclamation, levelling and preparing lands, etc. In the *Bulletin* for November 1914 we published an article showing the importance of such associations and the measures taken in Italy to promote their growth, and we pointed out the important part they were taking in carrying out government contracts (1).

It was then shown that the Law of June 25th., 1909, N° 422, authorises such associations to unite in consortiums in order to apply for contracts of more importance, each of which may amount to as much as two million lire. One of the most prosperous of such consortiums is the Ligurian Consortium of Co-operative Associations for Production and Labour, on which we give the following data, drawn from the "*Cooperazione Italiana*" of October 15th., 1915 (No. 1161).

This periodical states that if the co-operative movement in Liguria has attained such proportions as to rival the most important industrial and commercial undertakings, the credit is mainly due to the Chamber of Labour (*Camera del Lavoro*) of Genoa. It was this institution which in 1907 gathered into one body the several co-operative labour associations, organising them into a federation which subsequently gave rise to the Consortium. To its initiative is also due the foundation of a distributive consortium, which has already opened several stores in the city and which is of great service in protecting the interests of consumers.

The Ligurian Consortium of Co-operative Associations for Production and Labour was incorporated by a decree of February 11th., 1912 (2). Seven associations joined to form it, and it now numbers as many as 17 of the most important co-operative organisations of the city and province, carrying on the most various industries, from those of the building trades to those of ship-building and ship-breaking, from loading and unloading coal and merchandise to the manufacture of compressed air tanks and boilers, from wood and marble work to the printing trades, etc.

To-day the Consortium and its affiliated co-operative associations represent a labour force of over eight million lire, a subscribed and paid up

(1) Over 600 co-operative associations for production and labour are now entered on the registers of the prefectures. During the three year period, from 1910 to 1912, 176 of these secured from the administration of public works 543 contracts for a total value of 30,291,401 lire. These co-operative associations secured during this period from 2.11 % of all contracts assigned in the Marches up to 58.34 % of those assigned in Emilia. See on this subject the interesting Statistical Report on Contracts for Public Works (*Relazione statistica sui contratti d'appalto*) Vol. 1, 1910-1912, published by the Ministry of Public Works in 1914.

(2) The Consortiums of co-operative associations for production and labour, of which there are now more than twenty, are established by royal decree on the motion of the Ministry of Agriculture, Industry and Commerce, acting in concert with the Ministry of Public Works; they enjoy full autonomy but are subject to the supervision of the said ministries; they are corporations and come under the provisions of the commercial code as regards their commercial dealings and all the effects consequent thereon.

capital of over half a million lire, a reserve fund of about 300,000 lire, and a benefit fund of over 90,000 lire.

The work of the Consortium is mostly concerned with the building trades, works of excavation, ship-breaking, and so forth. The Federation which preceded the present Consortium had already contracted for and carried out important works of this kind to the entire satisfaction of the administrations which gave the contracts (1).

Thanks to the facilities granted by law the Consortium has been able to develop rapidly, as is shown by the following table giving data for the first three years' work:

Growth of the Ligurian Consortium of Co-operative Associations.

Year	Capital	Reserve Fund	Value of work contracted for	Net profits
	Lire	Lire	Lire	Lire
1912	20,980.00	—	2,063,379	133,667.50
1913	68,799.29	26,733.50	2,300,965	152,341.89
1914	81,576.68	66,173.74	2,522,239	138,645.81

If it should seem that the capital owned by the Consortium is disproportionate to the value of the work contracted for, it should be remembered that the figures given are for the capital contributed by the affiliated co-operative societies in conformity with an explicit provision of the law. But as the statutes of the Consortium contain an article which provides for "the unlimited and joint liability of all the co-operative associations affiliated to the consortium" it may truly be said that the capital of the Consortium amounts to over half a million lire, which is the value of the capital of the several associations forming the Consortium.

The Consortium has played an important part in the rebuilding of Genoa: the great blocks of workmen's dwellings, the laying out of the streets and squares in important sections, the enlargement of school buildings, etc., are all works which it has carried out. But the most important work on which the Consortium is engaged is the erection of the new hospital of S. Martino d'Albaro, which entails an expenditure of over 5 million lire.

The mode in which the Consortium distributes its profits is worthy of note. In so doing it does not only concern itself with the increase of

(1) The statistical report on contracts for public works, already referred to, points out that during the three years from 1910 to 1912 four co-operative consortiums secured 14 contracts from the administration of public works for a value of 5,337,616 lire. Ten of these contracts were given to the Federation of the co-operative associations of the province of Ravenna for 4,506,316 lire.

its capital and reserve fund and with the satisfaction of the material needs of the affiliated co-operative societies proportionately to the labour force which each has contributed to the common work, but it also takes into account the spiritual and moral requirements of the working classes, granting subsidies to the People's University, to the G. Mazzini Library, to the Consortium of Friendly Societies, and to other institutions which aim at the moral improvement of the workers.

Many of the affiliated co-operative associations are acquiring importance both on account of their increasing wealth and of the money value of the contracts which they carry out. Thus the co-operative association for unloading coal, which has a paid up capital of upwards of 60,000 lire, as well as a considerable reserve and benefit fund, carried out in 1914 work for the value of over two million lire at a net profit of 102,983 lire, and the metal workers' co-operative association, which owns a capital of 120 thousand lire, carried out work valued at over one million lire, etc.

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3. — THE NEW BYE-LAWS OF THE ECONOMIC AND SOCIAL UNION OF ITALIAN CATHOLICS. — As our readers already know, the Economic and Social Union of Italian Catholics with head-quarters at Bergamo, is the great centre which co-ordinates and directs the activities of the economic and social institutions of Catholics in Italy. Its bye-laws have recently been radically amended so as to fit it to meet the requirements of the day and the ever growing development of Catholic activities. As a result of this reform the organisation of the Union is fixed as follows: in the first place, its aim is to "promote, direct, and co-ordinate all the social and economic activities of Italian Catholics in conformity with Catholic doctrines with the instructions of the Holy See, with the principles laid down in its programme, and with the decisions of the Board of Management of the *Azione cattolica Italiana*. The Union consists of all the social and economic institutions, which are already organised into their special national federations, and aims at attaining its objects mainly by verbal propaganda, by publications, visits, and the inspection of the affiliated institutions, courses for technical training, meetings and congresses.

Its organs are the "General Council" and the "Presidential Board." The General Council consists of (a) the President and one representative for each of the above mentioned national federations; (b) the general secretaries of those national federations which have organised a special secretarial office in regular working order; (c) additional councillors whom the Council may appoint in number which may not exceed one half of the number of the *ex-officio* councillors. The members of the General Council remain in office for three years and may be re-elected. The Council meets as a rule once a year, and after hearing a report on the moral and economic progress of the work, lays down in outline the programme for the

future, appoints, as the case may be, all or part of the elective members of the Council, and proceeds to the election of the members of the Presidential Board. It also fixes the annual dues to be paid by the several national federations to the funds of the Union. Each member of the Council has the right to submit motions for discussion at this meeting.

The Presidential Board consists of a President, a Vice-President, a treasurer, and two councillors, also of an Ecclesiastical Assistant appointed directly by the Holy See with a deliberative vote, and of the Secretary General of the Union with an advisory vote. This board represents the Union, is entrusted with carrying out the decisions of the General Council, watches over the procedure of the affiliated Federations, calls the general meetings, draws up the agenda for them, and compiles the statistical returns of the social and economic associations.

(Abstracted from the *Azione Sociale*, Bulletin of the Economic and Social Union of Italian Catholics, Bergamo, August, 1915).

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4. — AN IMPORTANT INITIATIVE OF THE ITALIAN FEDERATION OF CATHOLIC RURAL BANKS. — The Italian Federation of Catholic Rural Banks has recently drawn up a comprehensive scheme for the reorganisation of the local federations of rural banks for which it has been preparing for some time past. This scheme consists mainly in uniting all the existing rural and peoples' banks in legally constituted diocesan federations for each province or region. Several such federations already exist, some of which are prosperous. We note, amongst others, the Federation of Rural and Peoples' Banks of the Province of Bologna, which on the 31st. December, 1914, grouped together 84 banks with 7429 members; the Central Credit Bank of Latium, with 38 federated banks; the provincial or diocesan federations of Cosenza, Brescia, Bergamo, Pistoia, Treviso, Mantua, etc. Most of these, however, are not legally recognised, and so cannot exercise economic functions but are limited to exercising moral influence. In accordance with the above mentioned programme, there will henceforth be two kinds of legally constituted local federations; one kind will limit its work to inspection and technical advice, the other will discharge the functions of central banks. The latter will be organised only in those localities in which the financial duties of a central bank are not already discharged by a local Catholic bank. The National Federation has therefore compiled a set of model bye-laws to serve as a basis on which to draw up the bye-laws of the new federations, and by which to amend those of federations already in existence. It is especially suited to the needs of those federations which do not intend to act as central banks. In accordance with these bye-laws the said federations will be organised as co-operative societies with limited liability, the purpose of which will be (a) to act as the central organ of the affiliated share-holding societies and to act as an intermediary for facili-

tating the financial transactions of said societies with the Banks of issue and with ordinary credit banks ; (b) to organise on behalf of the affiliated share-holding societies services of representation, supervision, and advice on questions of administration, law, and accountancy, more especially by means of visits of inspection ; (c) to promote the organisation of new institutions of popular credit and co-operation ; (d) to assist the affiliated share-holding societies in making their collective purchases and in all technical, fiscal, legal and economic matters, (e) to develop by means of the affiliated share-holding societies the agricultural credit business.

The means at the disposal of these federations will consist of a share capital formed by shares of 25 lire each and of a reserve fund. Membership is open to rural banks, peoples' banks, and workmen's banks, to co-operative and other legally constituted societies, and, in special cases, to individuals who have actively promoted co-operation and mutuality. Banks, co-operative societies, and other bodies which wish to become members must make application in writing to the Board of Administration, must accept the bye-laws and rules of the federation, and must be admitted by the Council itself, which decides without appeal. On becoming share-holders the affiliated societies must (a) submit to inspection, and conform to the decisions taken with regard to them by the Board of Administration, and assist in assuring the regular working of all the other services of the Federation ; (b) pay each year dues fixed by the general meeting as compensation for the cost of the services above referred to ; (c) conform with the decisions of the general meeting and the Board of Administration. This board consists of seven members, and has the fullest powers for the ordinary and special administration of the federation ; it deliberates and provides for the work and services of the federation, for the admission, withdrawal, and exclusion of members, for the appointment and salaries of employees, and so forth.

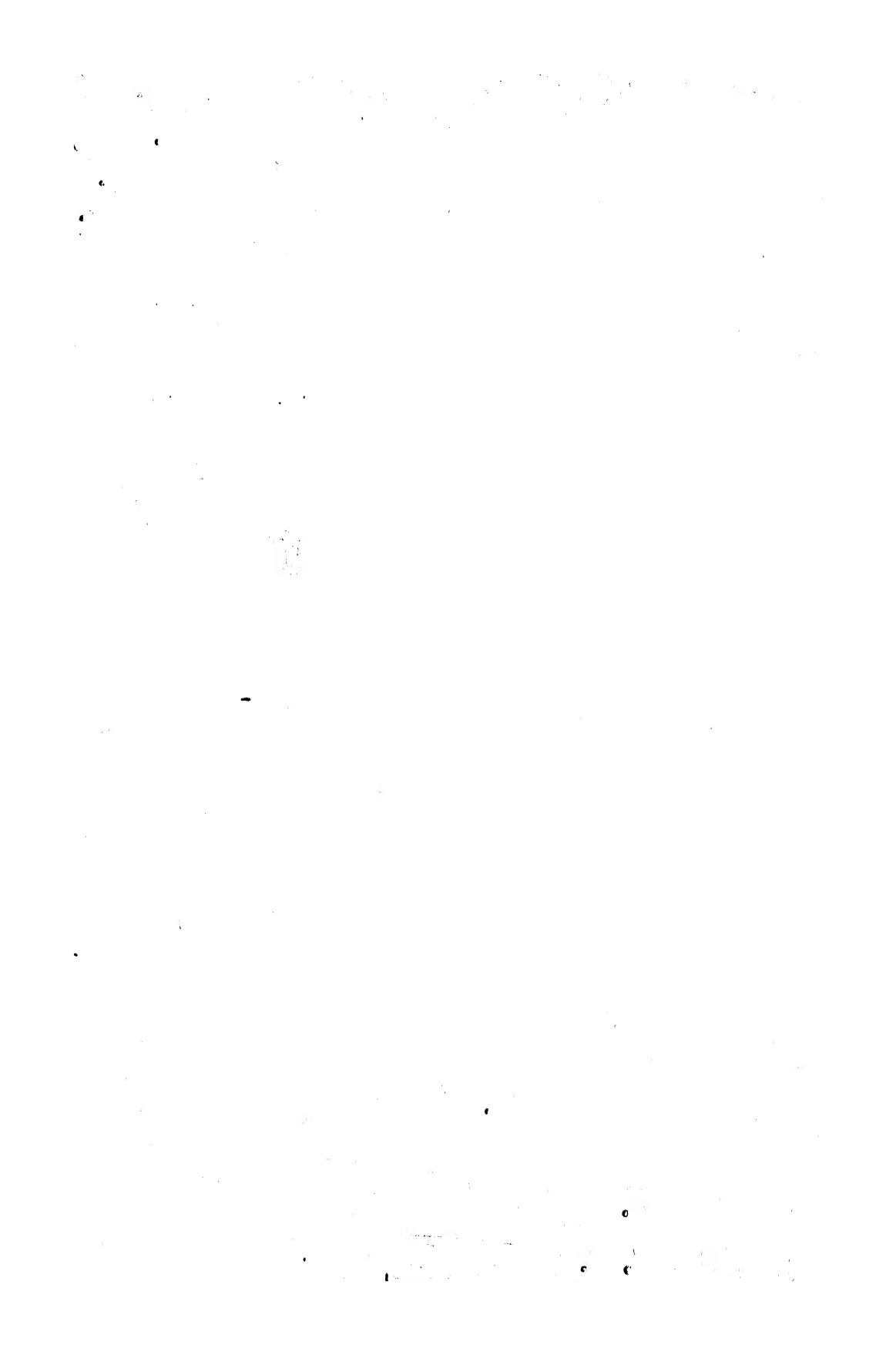
The better to carry out this comprehensive scheme, the National Federation is now inspecting the federations affiliated to it so as to make sure of their regular working and to facilitate their development. The federations of Bologna, Lodi, Florence, Forlì, and others have already been visited and answers obtained to a special "questionnaire", consisting of two parts, one dealing with the generalities of the federated organisation such as title, number, situation and nature of the affiliated banks, bye-laws, working organisation of the several federated services, rules of administration, financial means, etc, the other dealing with financial questions as, for instance, loans, current accounts due to the society, securities, cash in hand, goods, capital and reserve fund, deposits, etc.

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5. — THE FOUNDATION OF AN AGRICULTURAL LOAN BANK. — On the initiative of the Cooperative Agricultural Union of Latium an Agricultural Loan Bank has recently been opened in Rome with the following programme :

(a) to secure credit on the most favourable conditions to its members and to agriculturists in general, freeing them from the need of selling their produce under unfavourable conditions just after the harvest and enabling them to hold their crops for sale at the most favourable moment by means of credit warrants accompanied by pledge certificates granted to members on depositing their produce in the general warehouses in Rome ; (b) to organise the retail sale of agricultural produce to the consumer direct, so as to enable purchasers to buy their provisions at moderate prices without having to satisfy the undue exactions of speculating middlemen ; (c) to give commercial value to grain and seeds by sorting, sifting, and cleaning them with proper machinery, so as to enable the farmer to profit by the increased value conferred on such products by this process.

(From a notice sent out by the Society in November 1915).



Part II: Insurance and Thrift

GENERAL.

TECHNICAL CONDITIONS OF FORESTRY INSURANCE

(Continued).

§ I. HOW TO FIX THE RATE OF CAPITALISATION FOR FORESTS.

The labours of the Superior Commission appointed by the French Government to ascertain and estimate the amount of the material losses caused by the war have induced M. Dabat, General Manager of Waters and Forests, to consider thoroughly the problem of the valuation of damage to forests treated by us in the number of this Bulletin for October. The eminent specialist classifies this damage under three heads :

- I. Damage to forests that have been felled ;
- II. Damage to standing trees ;
- III. Damage to the soil.

It is only the two latter categories that come within the range of our investigations.

M. Dabat first of all points out that in the case of forests it is as a rule impossible at once to restore them to their former condition, for the wood destroyed is only slowly formed again. Therefore, during the period of restoration, the decrease in the yield from the forest must be compensated by an amount in money. The amount of money to be paid at once to the injured proprietor, as compensation, can evidently only be fixed by means of calculations implying the adoption of a rate of interest.

Forest produce takes many years for its formation. The value of a plantation a year old cannot be realised, nor that of one five or even ten years old. However, such plantations have a value for their proprietors, account

of which must be taken if they are damaged or destroyed. This value they possess solely in view of a later realisation, and it is called the future value of the trees or plantations. It can only be fixed by means of calculations implying the adoption of a rate of interest.

It is evident that the rate to be adopted must always be that of the investment of the capital sunk in the forest under consideration, or, if it is preferred, the rate at which the capital produces. In fact, if for ten years we deprive a forest proprietor of an annual revenue of 100 francs from his property, we can only fairly compensate him by means of an amount capable of yielding these ten annual sums of 100 francs or the same rate as that at which the forest produces. If the forest produces at the rate of 3 %, the estimate of the damage will be most certainly and quite fairly very much higher than in the case of a loss of the same yield incurred in a forest yielding at the rate of 5 %. This, in the end, means that we must pay the injured proprietor not merely interest, but also an amount of capital equal to that he possessed before.

The estimate depends very largely on the rate adopted. Thus the question of the selection of the rate is of fundamental importance and has been deservedly considered separately and in detail by M. Dabat.

In every forest we find a working capital and a yield. The capital includes the soil, the standing wood and the circulating capital indispensable for every undertaking. Comparison of the annual yield with the invested capital will give an amount called the rate of yield from investment in forest estate, which is only the yearly interest on capital. It has become usual to express the rate as percentage of the capital and to say it is 3 %, 5 %, etc. While it is of extreme importance to fix the rate to be adopted, or the rate at which the capital invested in forests produces, it is also very difficult and sometimes impossible to fix it accurately; it is often necessary to be satisfied with an estimate, and this constitutes the chief difficulty in forest valuation and is peculiar to it.

In fact, the rate can only be calculated in the case of forests normally worked, that is to say of forests giving, ordinarily, a constant and regular annual yield and thus having a perfectly definite value. This seldom occurs in practice and can only occur in cases of forests of very simple character, as for example ordinary copsewood giving an annual or periodical yield. Really, we are almost always, except in this special case, reduced to estimating the rate. M. Dabat gives the following advice in regard to these estimates.

The rate of yield from investment in a forest estate or the rate of production of a forest, varies within very wide limits, for example, between 1 % or even less and 5 % or 6 % or sometimes more.

If a forest only produces quite young wood and faggots the commercial value of which hardly covers the expenses of gathering them, it is evident that the rate of production is very low, for the principal always includes at least the value of the forest soil and a circulating capital, even if the value of the standing wood is very small.

On the other hand, if the forest is worked so as to produce very old wood, the capital value will become very considerable, if an annual yield is taken from it, on account of the enormous value of the growing standing wood. Experience shows that this capital value soon increases (when the age for felling is raised) far faster than the yield. If the forest gives a periodical yield, the long intervals between the fellings produce the same results, so that we may say:

"In systematically worked forests very low rates of yield correspond with very early fellings. When the age for felling is raised, the rate rises and soon arrives at a maximum, after which it goes on indefinitely decreasing, so that with very late fellings there correspond very low rates of yield."

On the other hand, the certainty with which the different kinds of forest produce varies greatly. Some, such as pine forests, are very much exposed to loss through fire, which reduces the value of their capital and increases the rate of yield. Others, such as forests of deciduous trees, give a very constant yield, because it is obtained from a large variety of produce, whilst the principal is very little liable to be affected by accidents. The rate of yield from investment in such forests would be very low. Woods of the character of oak coppices, the yield from which consists in a single class or only two classes of goods, will give a very uncertain and varying yield.

Finally, the rates of yield from investment in forests of course vary according to the general law of supply and demand which effects all values of every kind according to time and place. When the economic circumstances are of a nature to lower the rates of yield from investment generally or to increase them, the rates in connection with investments in forest estate of necessity are affected. A great difficulty in regard to the adoption of rates of interest in connection with forestry is that the calculations often suppose an invariable rate for a very long period, which does not correspond with the facts. Experience shows that the rates, whatever they may be, vary according to economic conditions and consequently from one period to another, as above said.

We may conclude then that if the selection of a rate of interest is extremely important for purposes of forest valuation, it is also an extremely delicate matter. It will, however, be useful to give here, with every reservation, a few figures, while we must observe that they are only averages that seem to be true for the present moment, but the different species may present divergences from them of greater or less importance.

Generally, the rate of yield from investment in an ordinary coppice varies from $3\frac{1}{2}\%$ to 6% .

In a coppice containing also large trees it would be from 3% to $4\frac{1}{2}\%$, according as such trees are more or less abundant.

In a pinewood it would be from 4% to 5% , etc. It will be understood, that, in spite of the advantage it would be for appraisers to obtain figures that might serve as a basis for their calculations, it has not been possible for M. Dabat to make precise statements and definite affirmations, as the matter

does not lend itself to this. We have a problem of valuation before us which has to be solved specially for each forest.

Finally, when the elements necessary for fixing the rate according to the above rules are not forthcoming, an indication may be found in the commercial rate of yield from land investments in the region.

§ 2. THE TWO VALUES OF STANDING TIMBER.

The rate of capitalisation serves, we have said, to fix the future value. A living tree or plantation has in fact two values. It may be cut and delivered to the wood merchant. He will pay the sale value. It may also be left standing with a view to later realisation by a speculator purchasing it at the value which it will have at the time of realisation less discount. He will estimate it at its future value. Sale value and future value are two independent conceptions, neither of which can be substituted for the other. No valuation can leave either out of consideration without the risk of very serious error.

The future value always exists. However old a living tree may be, in can always be left to grow older. However young it is, even if only a seedling still possessing its cotyledons, it has already a future value.

Only those already sufficiently mature for cutting them to give a profit have a sale value. A four years old copsewood has a future value; it has as yet no sale value.

Most frequently the two values coexist, in the case of a living tree or wood. The higher of the two is then taken as the real value. The two values are, indeed, equally real, but it is true that the highest is the most important; it is the price that will be realised at sale when there is sufficient competition.

Experience shows that when a tree or a wood is allowed to grow old, the capital represented by its value together with that of the soil in which it grows increases at a rate which becomes less and less every year from the first appearance of the plants up to the most advanced age. In other terms, the rate at which the capital invested increases, that is, the proportion between the annual increase in value and the amount of value acquired, continually decreases as time goes on. Very high in the earliest years, it at last falls to insignificant amounts like 0.50 %, 0.25 % or even less, when the woods are very old.

It follows that when we fix the future value of a living wood or tree by discounting the value it will have in a certain number of years at a rate calculated as above explained, we shall get a value higher than the sale value if the tree or wood is young and the rates of increase are, therefore, high. If, on the contrary, the forests are too old and their value only increases very slowly, on discounting the ultimate value at the same rate, we shall of course arrive at a future value less than the present sale value. Between these two cases we find that in which the two values are the same.

We shall not dwell on these considerations which will be found developed in special treatises. It is only necessary to mention that, if we compare the future value with the sale value, we find that, for very young woods, the first is the higher, that a time follows when the two values are the same and, afterwards, in the case of older woods, the sale value is the higher.

§ 3. METHODS OF VALUING STANDING TIMBER.

We have seen in the first part of this article the nature of the damage due to forest fires. When the damage has been done, the appraiser must form an accurate idea of the nature of such woods as have been totally destroyed, their extent and the volume of standing timber. When the woods have merely been injured it is possible to calculate the value of what remains, which is called salvage. Inventories made for the purpose may require much time and expense and in any case must be in part estimated.

Except for the very special case of a forest normally worked, the damage to standing trees is obtained by estimating the forests damaged or destroyed at the value they had for their proprietor, less the salvage, if any.

If the woods damaged or destroyed were sufficiently old to be considered as ready to be felled for the markets, they are valued at their market price or sale value. Otherwise they will be estimated at their future value, that is to say taking into consideration the value they would have had at the moment they became ready for felling and treating the forest as a capital bearing compound interest.

It is shown in the special treatises that if x is the future value of a wood, n' years old, which must be realised when it is n years old and will then give a net revenue equal to r and if t is the rate to be adopted in the calculations, we obtain the equation:

$$x = r \frac{(1 + t)^{n'} - 1}{(1 + t)^n - 1}$$

The factors $(1 + t)^{n'}$ and $\frac{1}{(1 + t)^n - 1}$ have been calculated in ad-

vance for all usual values of t , n' and n and are given in tables in all treatises on forest valuations or in the "ready reckoners" of business men. It is enough to discover the value of these factors and apply the formula in order to obtain the result.

Example. — A wood, 18 years old, will be felled at 25 years, when it

will give a net yield of 600 francs. The rate to be adopted to 4 %. What is the real future value of this wood ?

• It is

$$x = 600 \frac{1.04^{18} - 1}{1.04^{25} - 1}$$

The table shows that $1.04^{18} = 2.026$, whence $1.04^{18} - 1 = 1.026$ and

$$\frac{1}{1.04^{25} - 1} = 0.60$$

We shall then have $x = 600 \text{ francs} \times 1.026 \times 0.60 = 369 \text{ fr. } 36$.

We may still further simplify the calculations by means of tables to give directly for the usual value of n , n' and t the factor by which the revenue r must be multiplied to obtain x , the future value. Such a table will be found at the end of this article.

The rate to be adopted in the calculations must be that of the yield from the investment of capital sunk in the forest under consideration.

It is necessary to state clearly when the woods must be estimated at their future value and when at their sale value.

Cases in which the age for felling is indicated. — When in a forest an age for felling has been decided on by the proprietor, all woods that have not yet reached this age must be estimated at their future value. If a proprietor, whose forest yields at the rate of 4 %, proposes to fell at 25 years a wood nineteen years old, which will sell for 600 frs. net at 25 years, this wood has very really, *for its owner*, the future value calculated. This value lawyers call *erga dominum*; and the experts must have this in view when they make their estimates.

Woods that have passed the age fixed for felling, if any such are found in the forest area, must be estimated at their sale value, for they represent for their owner a revenue that has become due and is realisable.

Case in which the age for felling is not indicated. — Whenever the age for felling is not strictly fixed by the proprietor himself, the appraiser must assign to the growing woods the highest value they can have at any age at which they are felled. That is to say a value for n is sought for that will give

the highest value to the expression $r \frac{(1+t)^{n'} - 1}{(1+t)^n - 1}$ in which n is the only

independent variable quantity, since, when n is known, the value of r is immediately found. Once the age n is fixed (the forestry economists often call it the limit of commercial exploitability), woods that have not yet attained n years of age must be valued at their future value, and older woods, at their sale value.

But these operations may appear somewhat complicated.

M. Dabat has given the following rules to simplify the method :

In the case of copsewoods not yet 30 or 35 years old, the future value will be calculated on the supposition that they will be felled when from thirty to thirty-five years old, except in the case of certain kinds of trees, such as chestnuts, for example, which are felled with advantage at a much less advanced age. In the same way, the future value of high forest trees not more than fifty or sixty years old will be calculated on the supposition that they will be felled when from fifty to sixty years old.

In the case of copsewood more than from thirty to thirty-five years old, or high forest trees more than fifty or sixty years old, the sale value will be fixed.

When we have to consider young fresh growth among high forest trees felled at long intervals, these young trees may be valued at their future value as if they were to be felled when from fifty to sixty years old.

When the value of these fresh growths is insignificant in comparison with that of the older trees, sometimes a simple estimate of their value will be held sufficient, provided it is based on the future value.

This kind of valuation will be, for example, necessary in forests where trees of all ages grow together indiscriminately, when it will be impossible to fix the value of the young trees otherwise than by such an estimate.

Valuation of trees. — The value of trees is arrived at precisely in the same way as that of the woods. When the age for felling is fixed, the future value of trees that have not reached this age may be calculated, the others, if there are any, will be valued at their sale value.

When no age for felling has been fixed, or when the age fixed is one very advanced, most usually, in practice, their sale value is estimated, if the wood has attained a certain age, for example from 50 to 60 years, and younger trees will be estimated at their future value on the supposition of their being felled at an age of from 50 to 60 years (taken by way of example).

Some experts make no calculation in fixing this future value and simply add a surplus value, which they estimate, to the sale value of the young trees. Thus a standard which will furnish a tenth of a *stère* of firewood and thus will have a sale value of 40 c., will be estimated at 60 c. or 70 c. or more according to its age, so as to take account of what it might become, at the end of a certain number of years, as wheelwrights' wood.

Case of Forests systematically worked. — For forests systematically worked a special system of valuation may be adopted.

Those forests are said to be systematically worked the management of which is regulated and the capital constituted in such a way as to give a constant and regular yield, as a rule an annual yield.

This organized condition may be theoretically defined for every type of forest management. In fact it can scarcely be realised in practice except when the intervals between the felling are very short, as in the case of simple copses or certain pinewoods intended for felling at short intervals, which may, in an economic sense, be assimilated to copses.

When we find forests in which felling takes place at short intervals and the capital is perfectly normal and the yield regular, we may, according to M. Dabat, estimate, according to the following method, the loss suffered by the proprietor whose standing woods have been partially destroyed.

After a detailed examination of the condition of the forest, a working plan must be prepared so that the forest may be as speedily as possible brought back to its former condition of systematic working. This result can only be attained at a more or less distant date, during which the revenue will remain less than it was previously, as the capital lost can only be reconstituted by means of economy in production. In order that it may be taken into account, during the period of reconstitution, the decrease in the forest yield must be made up for each year by means of a sum of money. Let r , for example, be the former annual revenue, $r_1, r_2, r_3 \dots r_p$ the revenue obtained in the first, second third p^{th} year of the period of reconstitution. The loss to be incurred in the first year will be $r - r_1$, that of the second year will be $r - r_2$, that of the third year $r - r_3$, that of the p^{th} year $r - r_p$. The first will be made up for by the present

payment of an amount equal to $\frac{r - r_1}{1 + t}$ which in one year will become $r - r_1$;

the second by an amount $\frac{r - r_2}{(1 + t)^2}$, the p^{th} by an amount $\frac{r - r_p}{(1 + t)^p}$, which in

p years will become $r - r_p$, etc. The total loss will be the sum of all these factors.

§ 4. DAMAGE TO THE SOIL.

The losses caused by disturbance of the soil, the destruction of the roots of copses or of high forest trees must be estimated from the amount to be spent for the restoration of the former condition of the soil. When in practice this former condition can only be partially restored, a compensating estimate must be established.

If the leaf-litter (the surface cover formed by dead leaves and forest debris, constituting the raw material of the vegetable mould and the principal element of the fertility of the forest soil) is destroyed, it will have to be considered that this destruction occasions a temporary decrease of the fertility of the soil, that is to say of the production during one, two or three years, for example.

Table giving the values of the coefficient $\frac{(1+t)^n - 1}{(1+t)^n - 1}$ by which the yield I from a forest felled at the age of n must be multiplied in order to obtain the value of the standing timber at a lower age n' .

AGE OF FELLING.

Age of the wood n'	20 years										25 years										30 years									
	rate per cent										rate per cent										rate per cent									
	2.5	3.0	3.5	4.0	4.5	5.0	2.5	3.0	3.5	4.0	4.5	5.0	2.5	3.0	3.5	4.0	4.5	5.0	2.5	3.0	3.5	4.0	4.5	5.0	2.5	3.0	3.5	4.0	4.5	5.0
1 year	0.0389	0.0372	0.0353	0.0336	0.0319	0.0303	0.0293	0.0274	0.0257	0.0240	0.0225	0.0209	0.0228	0.0210	0.0194	0.0178	0.0164	0.0150	0.0228	0.0210	0.0194	0.0178	0.0164	0.0150	0.0228	0.0210	0.0194	0.0178	0.0164	0.0150
2 years	0.0794	0.0756	0.0717	0.0688	0.0651	0.0617	0.0597	0.0558	0.0520	0.0492	0.0459	0.0427	0.0465	0.0428	0.0393	0.0356	0.0335	0.0307	0.0465	0.0428	0.0393	0.0356	0.0335	0.0307	0.0465	0.0428	0.0393	0.0356	0.0335	0.0307
3 "	0.120	0.115	0.110	0.105	0.0998	0.0956	0.0922	0.086	0.0799	0.075	0.0704	0.0662	0.0701	0.0652	0.0602	0.0558	0.0513	0.0476	0.0701	0.0652	0.0602	0.0558	0.0513	0.0476	0.0701	0.0652	0.0602	0.0558	0.0513	0.0476
4 "	0.162	0.155	0.148	0.143	0.136	0.130	0.122	0.114	0.108	0.102	0.0958	0.0901	0.0947	0.0876	0.0813	0.0758	0.0699	0.0647	0.0947	0.0876	0.0813	0.0758	0.0699	0.0647	0.0947	0.0876	0.0813	0.0758	0.0699	0.0647
5 "	0.204	0.197	0.190	0.182	0.174	0.167	0.153	0.145	0.138	0.130	0.123	0.116	0.119	0.111	0.104	0.0968	0.0895	0.0831	0.119	0.111	0.104	0.0968	0.0895	0.0831	0.119	0.111	0.104	0.0968	0.0895	0.0831
6 "	0.249	0.241	0.231	0.222	0.214	0.206	0.187	0.177	0.168	0.159	0.151	0.142	0.146	0.136	0.127	0.118	0.110	0.102	0.146	0.136	0.127	0.118	0.110	0.102	0.146	0.136	0.127	0.118	0.110	0.102
7 "	0.294	0.285	0.275	0.265	0.256	0.246	0.221	0.210	0.199	0.190	0.180	0.171	0.172	0.161	0.150	0.141	0.131	0.122	0.172	0.161	0.150	0.141	0.131	0.122	0.172	0.161	0.150	0.141	0.131	0.122
8 "	0.339	0.331	0.320	0.310	0.299	0.289	0.255	0.244	0.232	0.221	0.211	0.200	0.199	0.187	0.175	0.165	0.154	0.144	0.199	0.187	0.175	0.165	0.154	0.144	0.199	0.187	0.175	0.165	0.154	0.144
9 "	0.387	0.378	0.367	0.355	0.344	0.333	0.292	0.279	0.266	0.254	0.243	0.231	0.227	0.214	0.201	0.189	0.177	0.166	0.227	0.214	0.201	0.189	0.177	0.166	0.227	0.214	0.201	0.189	0.177	0.166
10 "	0.436	0.427	0.415	0.403	0.392	0.381	0.328	0.314	0.301	0.288	0.276	0.264	0.255	0.241	0.227	0.214	0.201	0.189	0.255	0.241	0.227	0.214	0.201	0.189	0.255	0.241	0.227	0.214	0.201	0.189
11 "	0.485	0.476	0.465	0.452	0.441	0.430	0.365	0.351	0.337	0.323	0.311	0.297	0.284	0.269	0.254	0.240	0.227	0.214	0.284	0.269	0.254	0.240	0.227	0.214	0.284	0.269	0.254	0.240	0.227	0.214
12 "	0.537	0.528	0.516	0.504	0.493	0.482	0.404	0.393	0.375	0.361	0.347	0.334	0.314	0.299	0.283	0.268	0.253	0.240	0.314	0.299	0.283	0.268	0.253	0.240	0.314	0.299	0.283	0.268	0.253	0.240
13 "	0.588	0.580	0.570	0.558	0.547	0.536	0.442	0.428	0.413	0.399	0.385	0.371	0.347	0.328	0.312	0.297	0.281	0.268	0.347	0.328	0.312	0.297	0.281	0.268	0.347	0.328	0.312	0.297	0.281	0.268
14 "	0.643	0.636	0.625	0.614	0.603	0.593	0.484	0.469	0.454	0.439	0.425	0.411	0.376	0.360	0.342	0.326	0.310	0.295	0.454	0.439	0.425	0.411	0.396	0.380	0.454	0.439	0.425	0.411	0.396	0.380
15 "	0.697	0.692	0.682	0.672	0.662	0.653	0.525	0.510	0.495	0.481	0.467	0.452	0.408	0.391	0.373	0.357	0.340	0.325	0.495	0.481	0.467	0.452	0.437	0.420	0.495	0.481	0.467	0.452	0.437	0.420
16 "	0.753	0.750	0.741	0.732	0.724	0.716	0.567	0.553	0.538	0.524	0.510	0.496	0.441	0.424	0.406	0.389	0.372	0.356	0.538	0.524	0.510	0.496	0.481	0.465	0.538	0.524	0.510	0.496	0.481	0.465
17 "	0.812	0.810	0.803	0.795	0.788	0.782	0.611	0.597	0.583	0.569	0.555	0.541	0.476	0.458	0.440	0.423	0.405	0.389	0.569	0.555	0.541	0.526	0.510	0.494	0.569	0.555	0.541	0.526	0.510	0.494
18 "	0.871	0.870	0.866	0.861	0.855	0.851	0.656	0.642	0.628	0.616	0.603	0.590	0.514	0.492	0.474	0.458	0.440	0.424	0.616	0.603	0.590	0.574	0.558	0.542	0.616	0.603	0.590	0.574	0.558	0.542
19 "	0.912	0.912	0.912	0.912	0.912	0.912	0.701	0.688	0.676	0.664	0.653	0.640	0.546	0.528	0.510	0.494	0.476	0.460	0.653	0.640	0.628	0.616	0.603	0.587	0.653	0.640	0.628	0.616	0.603	0.587
20 "	1.000	1.000	1.000	1.000	1.000	1.000	0.748	0.737	0.726	0.715	0.705	0.693	0.582	0.565	0.547	0.531	0.514	0.498	0.705	0.693	0.681	0.669	0.657	0.645	0.705	0.693	0.681	0.669	0.657	0.645

Table showing the values of the coefficient $\frac{(x+t)^n}{(x+t)^n - 1}$ by which the yield r from a forest felled at the age of x must be multiplied in order to obtain the value of the standing timber at a lower age n .

AGE OF FELLING.

Age of the wood n	35 years										40 years										45 years									
	rate per cent										rate per cent										rate per cent									
	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
1 year	0.018	0.016	0.014	0.013	0.012	0.011	0.010	0.009	0.008	0.007	0.013	0.012	0.011	0.010	0.009	0.008	0.007	0.006	0.005	0.004	0.012	0.011	0.010	0.009	0.008	0.007	0.006	0.005	0.004	0.003
2 years	0.037	0.034	0.030	0.028	0.025	0.023	0.021	0.019	0.017	0.015	0.027	0.024	0.022	0.020	0.019	0.016	0.015	0.013	0.012	0.010	0.022	0.021	0.020	0.019	0.018	0.017	0.016	0.015	0.014	0.013
3 years	0.056	0.052	0.046	0.043	0.039	0.036	0.033	0.030	0.028	0.025	0.043	0.040	0.037	0.035	0.033	0.030	0.028	0.025	0.023	0.021	0.043	0.041	0.040	0.039	0.038	0.037	0.036	0.035	0.034	0.033
4 years	0.075	0.069	0.061	0.057	0.052	0.048	0.044	0.040	0.037	0.033	0.057	0.054	0.050	0.047	0.044	0.040	0.037	0.033	0.030	0.028	0.057	0.055	0.054	0.053	0.052	0.051	0.050	0.049	0.048	0.047
5 years	0.094	0.086	0.076	0.071	0.065	0.060	0.055	0.050	0.046	0.041	0.076	0.072	0.068	0.064	0.060	0.055	0.050	0.046	0.041	0.037	0.076	0.074	0.073	0.072	0.071	0.070	0.069	0.068	0.067	0.066
6 years	0.113	0.103	0.091	0.085	0.078	0.072	0.066	0.060	0.055	0.049	0.091	0.086	0.081	0.076	0.071	0.066	0.060	0.055	0.049	0.044	0.091	0.089	0.088	0.087	0.086	0.085	0.084	0.083	0.082	0.081
7 years	0.132	0.121	0.107	0.100	0.092	0.085	0.078	0.072	0.066	0.059	0.107	0.102	0.096	0.091	0.085	0.078	0.072	0.066	0.059	0.053	0.107	0.105	0.104	0.103	0.102	0.101	0.100	0.099	0.098	0.097
8 years	0.151	0.138	0.123	0.115	0.106	0.098	0.090	0.083	0.076	0.069	0.123	0.117	0.111	0.105	0.099	0.091	0.083	0.076	0.069	0.062	0.123	0.121	0.120	0.119	0.118	0.117	0.116	0.115	0.114	0.113
9 years	0.170	0.156	0.139	0.130	0.120	0.111	0.102	0.094	0.086	0.078	0.140	0.133	0.126	0.119	0.112	0.104	0.096	0.088	0.080	0.072	0.140	0.138	0.137	0.136	0.135	0.134	0.133	0.132	0.131	0.130
10 years	0.189	0.174	0.155	0.145	0.134	0.124	0.114	0.104	0.095	0.085	0.159	0.151	0.143	0.135	0.127	0.119	0.110	0.101	0.092	0.083	0.159	0.157	0.156	0.155	0.154	0.153	0.152	0.151	0.150	0.149
11 years	0.208	0.192	0.171	0.160	0.148	0.137	0.125	0.114	0.103	0.092	0.178	0.169	0.159	0.148	0.137	0.126	0.115	0.104	0.093	0.082	0.178	0.176	0.175	0.174	0.173	0.172	0.171	0.170	0.169	0.168
12 years	0.227	0.210	0.188	0.176	0.163	0.150	0.137	0.124	0.111	0.098	0.197	0.187	0.176	0.164	0.152	0.140	0.128	0.116	0.104	0.092	0.197	0.195	0.194	0.193	0.192	0.191	0.190	0.189	0.188	0.187
13 years	0.246	0.228	0.204	0.191	0.177	0.163	0.148	0.133	0.118	0.103	0.216	0.205	0.193	0.180	0.167	0.154	0.141	0.128	0.115	0.102	0.216	0.214	0.213	0.212	0.211	0.210	0.209	0.208	0.207	0.206
14 years	0.265	0.246	0.221	0.207	0.192	0.177	0.161	0.145	0.128	0.112	0.235	0.223	0.210	0.196	0.182	0.168	0.153	0.138	0.123	0.107	0.235	0.233	0.232	0.231	0.230	0.229	0.228	0.227	0.226	0.225
15 years	0.284	0.264	0.237	0.222	0.206	0.189	0.172	0.154	0.136	0.118	0.254	0.241	0.227	0.212	0.196	0.180	0.164	0.147	0.130	0.112	0.254	0.252	0.251	0.250	0.249	0.248	0.247	0.246	0.245	0.244
16 years	0.303	0.282	0.254	0.238	0.220	0.202	0.183	0.164	0.144	0.124	0.273	0.259	0.244	0.228	0.211	0.194	0.176	0.158	0.139	0.120	0.273	0.271	0.270	0.269	0.268	0.267	0.266	0.265	0.264	0.263
17 years	0.322	0.299	0.269	0.252	0.233	0.213	0.193	0.172	0.151	0.134	0.292	0.277	0.261	0.244	0.226	0.208	0.189	0.169	0.148	0.127	0.292	0.290	0.289	0.288	0.287	0.286	0.285	0.284	0.283	0.282
18 years	0.341	0.317	0.285	0.267	0.247	0.226	0.204	0.181	0.158	0.134	0.311	0.295	0.278	0.260	0.241	0.222	0.202	0.181	0.159	0.136	0.311	0.309	0.308	0.307	0.306	0.305	0.304	0.303	0.302	0.301
19 years	0.360	0.335	0.301	0.282	0.261	0.239	0.215	0.191	0.166	0.140	0.330	0.313	0.295	0.276	0.256	0.235	0.213	0.190	0.166	0.141	0.330	0.328	0.327	0.326	0.325	0.324	0.323	0.322	0.321	0.320
20 years	0.379	0.353	0.317	0.297	0.275	0.251	0.226	0.200	0.173	0.145	0.349	0.331	0.312	0.292	0.271	0.249	0.225	0.200	0.174	0.146	0.349	0.347	0.346	0.345	0.344	0.343	0.342	0.341	0.340	0.339
21 years	0.398	0.371	0.333	0.312	0.289	0.264	0.237	0.209	0.179	0.148	0.368	0.349	0.329	0.308	0.286	0.262	0.236	0.209	0.181	0.151	0.368	0.366	0.365	0.364	0.363	0.362	0.361	0.360	0.359	0.358
22 years	0.417	0.389	0.349	0.327	0.303	0.276	0.248	0.218	0.186	0.153	0.387	0.367	0.346	0.324	0.300	0.274	0.247	0.218	0.188	0.156	0.387	0.385	0.384	0.383	0.382	0.381	0.380	0.379	0.378	0.377
23 years	0.436	0.407	0.365	0.342	0.317	0.289	0.259	0.227	0.193	0.158	0.406	0.385	0.363	0.340	0.315	0.288	0.259	0.228	0.195	0.161	0.406	0.404	0.403	0.402	0.401	0.400	0.399	0.398	0.397	0.396
24 years	0.455	0.425	0.381	0.357	0.331	0.302	0.271	0.238	0.203	0.166	0.425	0.403	0.380	0.356	0.330	0.303	0.274	0.242	0.208	0.172	0.425	0.423	0.422	0.421	0.420	0.419	0.418	0.417	0.416	0.415
25 years	0.474	0.443	0.397	0.372	0.345	0.315	0.283	0.249	0.212	0.174	0.444	0.421	0.397	0.372	0.345	0.317	0.287	0.254	0.219	0.181	0.444	0.442	0.441	0.440	0.439	0.438	0.437	0.436	0.435	0.434
26 years	0.493	0.461	0.414	0.388	0.360	0.329	0.296	0.261	0.223	0.184	0.463	0.439	0.414	0.388	0.360	0.332	0.299	0.264	0.226	0.187	0.463	0.461	0.460	0.459	0.458	0.457	0.456	0.455	0.454	0.453
27 years	0.512	0.479	0.430	0.403	0.374	0.342	0.309	0.272	0.233	0.193	0.482	0.457	0.431	0.403	0.374	0.345	0.311	0.275	0.236	0.196	0.482	0.480	0.479	0.478	0.477	0.476	0.475	0.474	0.473	0.472
28 years	0.531	0.497	0.447	0.419	0.389	0.356	0.322	0.284	0.244	0.203	0.501	0.475	0.448	0.419	0.389	0.359	0.324	0.286	0.246	0.205	0.501	0.499	0.498	0.497	0.496	0.495	0.494	0.493	0.492	0.491
29 years	0.550	0.515	0.464	0.435	0.404	0.370	0.335	0.296	0.255	0.213	0.520	0.493	0.465	0.435	0.404	0.373	0.337	0.298	0.257	0.215	0.520	0.518	0.517	0.516	0.515	0.514	0.513	0.512	0.511	0.510
30 years	0.569	0.533	0.481	0.451	0.419	0.384	0.348	0.308	0.266	0.223	0.539	0.511	0.482	0.451	0.419	0.387	0.350	0.311	0.270	0.228	0.539	0.537	0.536	0.535	0.534	0.533	0.532	0.531	0.530	0.529
31 years	0.588	0.551	0.497	0.466	0.433	0.397	0.360	0.320	0.278	0.234	0.558	0.529	0.499	0.467	0.434	0.400	0.361	0.321	0.279	0.236	0.558	0.556	0.555	0.554	0.553	0.552	0.551	0.550	0.549	0.548
32 years	0.607	0.569	0.514	0.482	0.448	0.411	0.373	0.333	0.290	0.246	0.577	0.547	0.516	0.483	0.449	0.413	0.374	0.333	0.291	0.248	0.577	0.575	0.574	0.573	0.572	0.571	0.570	0.569	0.568	0.567
33 years	0.626	0.587	0.531	0.498	0.463	0.425	0.386	0.345	0.302	0.257	0.596	0.565	0.533	0.500	0.465	0.428	0.388	0.346	0.303	0.259	0.596	0.594	0.593	0.592	0.591	0.590	0.589	0.588	0.587	0.586
34 years	0.645	0.605	0.548	0.514	0.478	0.439	0.399	0.357	0.313	0.268	0.615	0.583	0.550	0.516	0.480	0.442	0.401	0.358	0.314	0.270	0.615	0.613	0.612	0.611	0.610	0.609	0.608	0.607	0.606	0.605
35 years	0.664	0.623	0.565	0.530	0.493	0.454	0.414	0.372	0.328	0.283	0.634	0.601	0.567	0.532	0.495	0.456	0.414	0.371	0.327	0.282	0.634	0.632	0.631	0.630	0.629	0.628	0.627	0.626	0.625	0.624
36 years	0.683	0.641	0.582	0.546	0.508	0.468	0.427	0.385	0.341	0.296	0.653	0.619	0.584	0.548	0.510	0.471	0.428	0.384	0.339	0.294	0.653	0.651	0.650	0.649	0.648	0.647	0.646	0.645	0.644	0.643
37 years	0.702	0																												

MISCELLANEOUS INFORMATION RELATING TO INSURANCE AND THRIFT IN VARIOUS COUNTRIES.

ARGENTINE.

THE BEGINNING OF THE SCHOOL MUTUAL MOVEMENT IN ARGENTINE. — The start of the mutual movement in the Argentine dates from the campaign for social action undertaken in 1912 by M. Leopold Mabillean under the auspices of the *Museo Social Argentino*. This propaganda resulted in the foundation of many institutions based on the principle of mutuality, forming a Pleiades-like group composed of ardent and enthusiastic mutualists. One of the most important effects of this movement was the impetus it gave to mutuality in schools. In fact, at the end of 1913 the "Mutualist Association" was constituted to encourage "saving, mutual protection, and the spirit of union among pupils and ex-pupils in schools." In March of the following year *La Linea Recta*, a school society, acting under one clause of its own constitution and after close study of similar institutions in France, Spain and Belgium, established a mutual association among pupils and ex-pupils of School No. 8 (Council or School District No. 19) to develop which it is making every effort. Owing to the need of having as many schools as possible in the association the rules were amplified, and in the month of May of the present year (1915) a statutory project of mutuality among pupils and ex-pupils of both sexes was submitted for examination to the 19th School District (1). Having been approved with some slight alterations it was transmitted to the National Council of Instruction that it might be put in force in all the schools of the 19th District. Such was the first manifestation of public school mutuality in the Argentine Republic. We shall now enumerate the principal regulations governing the "Mutual Aid Association among Pupils and Ex-Pupils of the 19th District."

The objects of the society in question are : (a) to encourage habits of saving and a spirit of solidarity; (b) to prepare children for their future lives ; (c) to help members by a daily allowance in case of illness or

(1) M. Pedro B. Franco, author of the article from which the above particulars are taken, points out the curious coincidence that school mutuality began in Buenos Ayres in the 19th School District as also in the 19th District of Paris.

accident; (d) to grant pensions to members above the age of 55, for old age or infirmity. The society may also constitute for its members under certain specified conditions a dowry or endowment to become payable upon their reaching the age of 25.

The members are divided into four classes: active members, patrons, benefactors and honorary members. The first are present and former pupils of both sexes of the schools of the 19th School District. The patrons are those who by gift or monthly grants contribute to the prosperity of the Institution without receiving advantage from it. The benefactors are those members who distinguish themselves by their activity in the cause of mutuality. Lastly the honorary members are those who have deserved well of the Institution.

Active members must be above six years of age and under fourteen. Members who entered at the close of the first year of the existence of the society pay an admission fee as follows: from six to eight years the amount of three monthly payments (0.70 pesos); from eight to ten years, the amount of four monthly payments (0.80 pesos); from ten to fourteen years the amount of five payments (1.00 pesos). The sums accruing from this source are paid into the reserve fund.

Patrons, benefactors, and honorary members are admitted and appointed by the Council of Administration of the society, without limit of age, residence or nationality.

The share capital consists of: (1) the subscriptions of active members; (2) those of patrons and honorary members; (3) donations and legacies; (4) sums realised by fêtes, sale of publications, etc.; (5) official grants. The total capital is divided into *Ordinary* and *Extraordinary Funds*. The *Ordinary Fund* comprises: (a) the amount devoted to mutual aid, resulting from half the subscriptions of active members; (b) a pension fund formed of the remaining half of these subscriptions; (c) the reserve fund consisting of the admission fees above-mentioned and payments made by patrons. The *Extraordinary Fund* includes donations and legacies, the sums accruing from fêtes and those appropriated to dowries, besides all the money collected without a definite object.

Active members or their legal representatives engage to pay subscriptions as follows: from six to fourteen years, 0.20 pesos per month, half of which goes to the mutual aid fund and half to be entered in the certificate for an individual pension. Members over fourteen years of age pay 0.50 pesos per month, divided in the same way.

Patrons pay an annual subscription of at least 5 pesos. Every patron who pays 50 pesos in one sum will be considered a founder; if he pays 100 pesos he becomes a benefactor.

A year after entrance any active member has in case of illness or accident a right to assistance as follows:

Age of member	Grant per day	
	During the first month of illness or accident	During the two following months
	Pesos	Pesos
from 6 to 14 years	0.25	0.50
" 14 to 25 "	0.75	1.00
" 25 to 55 "	1.00	1.25

If the illness should last more than three months, the Council of Administration must decide whether the state of the funds will permit a continuation of the grant.

No member may claim an allowance :

- (1) for any illness that lasts less than four days ;
- (2) for any chronic complaint ;
- (3) for illness caused by intemperance or contracted during an epidemic ;
- (4) for any accident for the occurrence of which the insured person himself must be held responsible ;
- (5) for injuries received in a quarrel if the injured person be the aggressor.

Pensions will be granted :

- (a) in case of accident on presentation of certificate of membership in due order and if possible a certificate stating that the accident incapacitates the individual from working, and was not due to his own fault or negligence ;
- (b) at the age of 55 years on presentation of a certificate of membership in due order and of a document proving the age of the member.

In case of the death of a member before the age of 22 the society will pay to his legal representative the amount of the premiums already paid towards his retiring pension. Sums unclaimed on the expiration of a year from the death of the member shall be handed over to the mutual aid fund.

Every active member between the ages of 6 and 8 years may form a marriage fund. To do this the member must present a request signed by his or her father or father's legal representative, together with a certificate attesting the petitioner's age, and must pay a weekly supplementary quota of 0.25 pesos.

The number of these payments may be increased at the member's pleasure. The fund may be paid up before the member reaches the age of 25 : (a) in case of marriage, at request ; (b) in case of the death of the member's father, at the request of the widowed mother

The society in question is ruled and administered by a Council of Administration and a Consulting Council. The National Council of Instruction of the Argentine Republic in the hope of rapidly extending the institution now that the first step has been taken, is preparing a code

of regulations for a "National Union of School Mutual Associations." Of this Union the object will be to encourage the development of the mutual movement in schools, to strengthen the bonds of solidarity among mutual societies, to facilitate the passage of members from one society to another, etc.

(From the *Boletín mensual del Museo Argentino*, Buenos Aires).

DENMARK.

THE NEW DANISH LAW ON SICKNESS INSURANCE SOCIETIES. — The new law first presented to Parliament in 1912 was approved in April, 1915 and comes into force on January 1st, 1916.

It is in conformity with the fundamental principle of the former law : voluntary insurance, with contributions from public institutions (State or Commune).

The right to register with societies recognised by the State is reserved for persons of the working class without means, to whom other classes are assimilated, such as small farmers, clerks, etc. No difference is made in regard to sex.

The person once registered may continue to belong to the society, even when his economic situation is improved, provided that the rules give him this right but the public institution (State or Commune) will no longer contribute for him and he must himself pay a corresponding contribution.

The society is obliged in case of sickness to provide medical and hospital assistance for the persons registered with it and their children (including adopted children) under fifteen years of age, provided they live in the district of the society.

However, in some cases the society must pay the hospital charges for a person registered with it, when, on account of his work, he has been treated in a hospital in another district.

The daily rate of sick pay is generally at least 40 öre (1) a day. The maximum, which in no case may exceed 3 crs. a day and four-fifths of the average wages of the patient, shall be established in accordance with the total average wages of the persons registered or at a fixed percentage of the average wages of each person registered.

A maternity society is attached to each society recognised by the State : the assistance given is fixed at least 1 crown a day, for the whole period the mother is obliged to keep her bed, and for at least ten days after delivery. The society also provides medical assistance during the confinement.

The new law contains various provisions to prevent the person registered from deriving economic advantage from his illness ; for example, a

(1) An öre is equal to about fr. 0.0135 : 100 öre make a crown.

member, who receives full wages during his illness, has no right to any assistance in money, and, in any case, has only a right to the difference between the wages he received before illness and what he continued to receive when ill.

The state contributions are fixed by the new law at two crowns per person registered, "without means of subsistence," at the end of the year, and also the fourth part of the expenses supported by the society for medical and hospital expenses. Besides this, the State pays the fourth part of the assistance in money paid for sickness or medical assistance to women in their confinements, not exceeding, however, a certain amount in the case of each person registered.

The yearly contribution of the State may, in no case, exceed 4.65 crs. per individual registered, when the society works in the capital or its suburbs; 4.15 crs. when it works in a provincial city and 3.65 crs. when it works in the country.

To decide disputes that may arise between doctors and the societies, a special board of 6 members is formed, three of the members being elected by the Central Sickness Insurance Societies Association and three by the General National Association of Doctors.

The six members elect a president.

BRITISH INDIA.

THE PROBLEM OF CATTLE INSURANCE IN INDIA. — Cattle form such an important part of the wealth of the small cultivator in India that very naturally a good deal of attention has been directed, since the success of the Indian co-operative movement has been assured, to the question of forming mutual cattle insurance associations among the cultivators themselves. Such associations have in fact been formed in considerable number in Burma; a few also have been formed in Coorg; and, in 1914, there was one, described as an experimental institution, in the United Provinces. In Burma there were 59 registered cattle-insurance societies on June 30th, 1914, but pending definite action upon a proposal to form a central reinsurance society the formation of local societies had been suspended. In Coorg the 9 societies which were working in 1914 were compelled, owing to the exceptionally high mortality among cattle due to drought, to suspend all operations that year from April to September. It is evident, therefore, that the experience of existing cattle-insurance societies in India has been too short to permit of any conclusions being drawn as to the prospects of success for co-operative insurance in that country.

Experience in European countries apparently does not furnish much guidance in attacking the problem in India. Mr. A. Yusuf Ali, I. C. S. (Retired) writing to the *Indiaman* contrasts conditions in India with

those in England where there were 157 cattle insurance societies (popularly called "Cow clubs") in existence at the end of 1913. The writer, uses the figures for 1912 when there were 130 societies in England and Wales, of which 22 were registered under the Friendly Societies Act. In these registered societies — the only ones for which annual returns are compulsory — the average membership was 71, the average number of animals insured per member was 3.1 and the average mortality rate was 2.4 per cent. of the insured animals. The insurance contributions levied worked out to an average of 4s. 1d. per animal insured which was sufficient to meet all claims. The reserves of the societies amounted to £ 4,881 — an average of nearly £ 222 per society, equal to five years' average losses. .

In Great Britain there are no violent fluctuations of cattle mortality. Epidemic disease is rare and upon its occurrence is ruthlessly stamped out. The risks undertaken by cow insurance societies relate mainly to normal deaths and accidents. Elaborate precautions are taken to prevent the introduction of disease with imported cattle. Suspicious cases are slaughtered and compensation is paid by the Board of Agriculture, which in the case of insured cattle reduces the burden of liability for the societies.

In India, a very different state of affairs exists. There are no accurate statistics of the loss of cattle by death or accident. Cattle-disease (rinderpest, anthrax, foot-and-mouth disease or some other form) is nearly always prevalent, and many outbreaks of disease are never reported at all. The simplest sanitary precautions are neglected; segregation is considered a hardship; and the slaughter of cattle — even to prevent infection — would cause a riot. Moreover, the rate of loss among plough-cattle in India from starvation and neglect is very heavy even in normal times, and in periods of famine agricultural cattle perish wholesale in the affected districts. There are, again, numerous losses at all times from straying, theft, cattle-poisoning, floods, snake-bite and the depredations of wild animals.

The writer concludes: — "An insurance society will have to count on all these factors. They would make the premium rates so high as to be prohibitive for the average Indian small holder. English experience does not apply, first because the normal risks of cattle are much greater in India than in England, and, secondly, because the abnormal risks due to famines and epidemics are practically unknown in England."

GREAT BRITAIN AND IRELAND.

A SUCCESSFUL HORSE AND CATTLE INSURANCE CLUB IN CAMBRIDGESHIRE. — The publication of a Note in the October number of the *Journal of the Board of Agriculture* on the working of the Haddenham Cattle Insurance Club enables us to supplement the article on "Mutual Cattle Insurance in England and Wales" which appeared in our issue of October with the following description of a club which for many years has successfully insured both horses and cattle.

Haddenham is a rural village in Cambridgeshire and the club in quest-

ion was founded there in 1888. It accepts for insurance the horses and cattle of any stock owner within a radius of five miles from Haddenham, its operations covering in all eight villages, each of which has separate representation on the Committee which consists of 23 members. There are now 122 members, for the most part small holders, some of whom are actual owners of the land they cultivate. For the ten years ending 1913 the average number of horses insured was 223 and the average number of cattle 171. Each member insures on the average about 2 horses and 1.5 cows, the largest number insured by any one member being 10 horses and 4 head of cattle.

The entrance fee for a horse is 2s., for a cow 1s. 6d. A foal may be entered on or after the 24th June in each year and any calf may be entered when four months old. The subscription, payable monthly at each meeting of the Club, is 4d. per month for a cow, and 6d. per month for a horse. The Committee has power to make a levy of 1s. per head of stock for every loss sustained by the Club, and to increase such levy (if found necessary) at the next monthly meeting. Insured animals are not valued except when they fall ill or die. If the animal dies the value is paid to the owner, in full, subject however to a maximum of £10 for a cow and £15 for a horse.

For the ten years the average death-rate per cent. per annum has been 4.5 for horses and 2.5 for cattle. The average amount paid in claims per annum has been £83. 17s. for horses, and £36. 11s. for cattle, equal to 7s. 6d. per animal insured for the former and 4s. 3d. per animal insured for the latter. As the monthly contributions amount only to 6s. per horse and 4s. per cow the regular income has not sufficed to pay the claims year by year. Besides the monthly subscriptions there is a small income from entrance fees amounting on the average to £8. 10s. a year, and from the sale of carcasses which are sold at a contract price of 25s. each carcass of whatever kind. Including receipts from all sources the total income has averaged £122. 2s. and, as the total expenditure averaged £126. 3s. there has been an average loss per annum of £4. 1s. The Club can always restore equilibrium by making a special levy as the Committee has power to do, but the writer in the *Journal* points out that much the better plan would be to raise the monthly premium from 4d. to 5d. for cows, and from 6d. to 9d. for horses. The premium for horses has hitherto been much too low in view of the facts that the mortality among horses has been almost double that of cows (4.5 per cent. as against 2.5 per cent.) and the maximum value payable is £15 for horses as compared with £10 for cows. By raising the rates of contribution as suggested the Club should in the future be in a position not only to meet expenses out of regular income but to build up a reserve fund as well. An even better plan (it is suggested) would be to abandon the fixed contribution and adopt the principle of a premium in relation to the estimated value of the animal. The owner, for example, might be required to pay 1 ½d. per £1 per quarter on the value of the animal, with a higher premium in the case of a brood-mare to cover the higher risk.

It should be mentioned that the costs of management in the Hadden-

ham society are exceptionally low, averaging for ten years only £5.15s. per annum, equivalent to 3 ½d. per animal insured.

SWITZERLAND.

NEW PROVISIONS REGULATING FOREIGN INSURANCE SOCIETIES WORKING IN SWITZERLAND. -- The new Decree regulating foreign insurance societies working in Switzerland is of special interest for us, owing to the fact that, as already reported in our *Bulletin* (1), when speaking of hail and livestock insurance in Switzerland, some of those societies working in Switzerland undertaking agricultural risks are foreign societies. Such are, for example, the *Badische Pferdeversicherungs-Anstalt* a. g. of Karlsruhe (Baden), the *Garantie fédérale* of Paris and the *Perleberger Versicherungs-Aktien Gesellschaft* of Perleberg in Prussia, all engaged in insuring livestock. The question of the guarantee these societies should give had already been discussed in the Federal Chamber and had attracted the attention of the authorities of the Confederation, above all of the Federal Insurance Office. But after the outbreak of the war the matter became of vital importance.

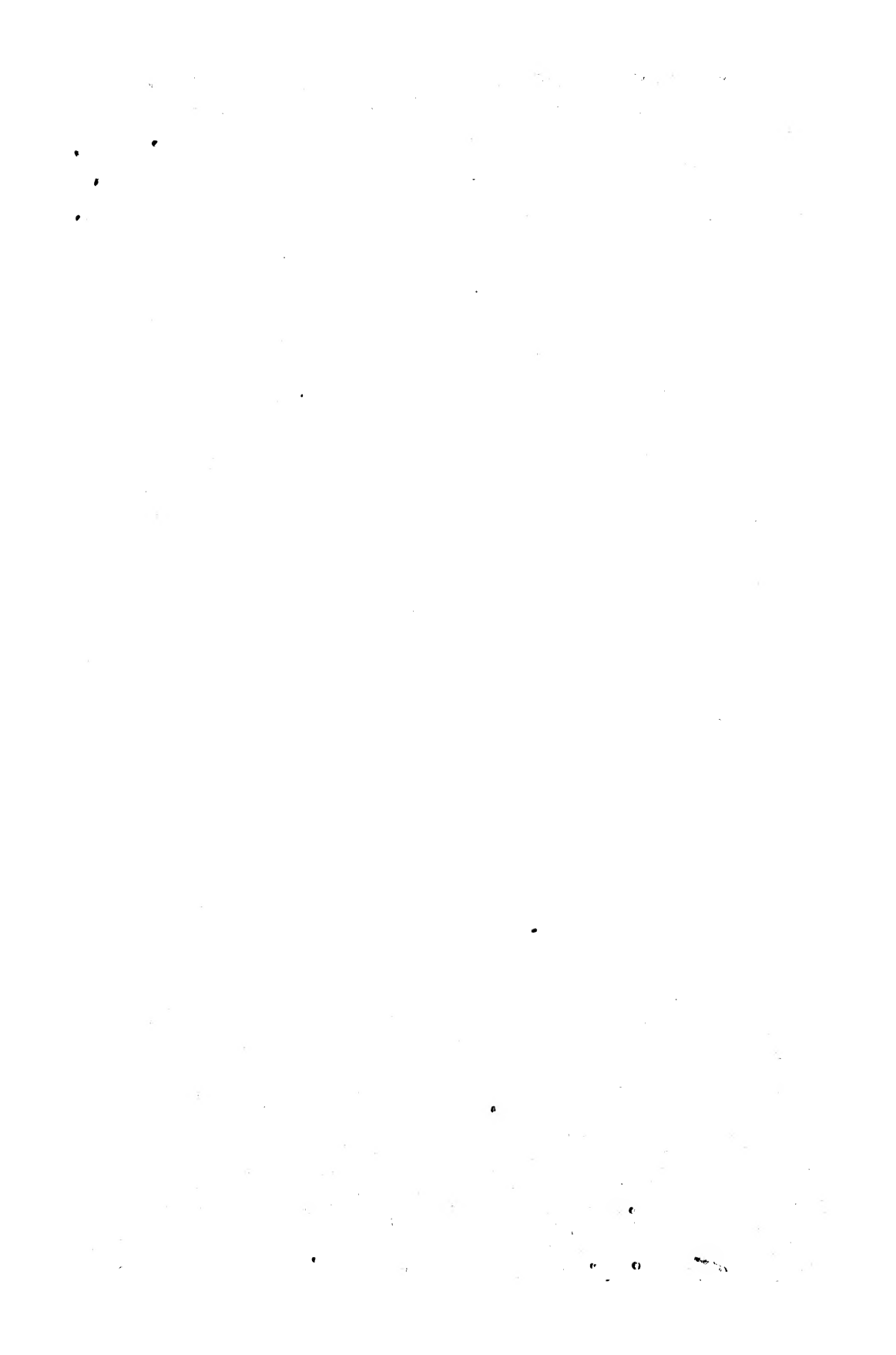
The Federal Council, therefore, decided to issue provisions that might fully satisfy the Swiss citizens insured in respect to their interests, and decreed that all foreign insurance societies authorized to work in Switzerland must deposit security to the amount of 100,000 francs, and the premium reserves corresponding with their work in Switzerland. The increase in the amount of these reserves from date of January 1st, 1915, must be deposited exclusively in Swiss securities. The Federal Department of Justice and Police, says the Decree, may fix certain terms within which every society must deposit the whole amount of its security.

This decision is certainly very important. Indeed the premium reserves of the foreign companies corresponding with their business in Switzerland would amount to about 200,000,000 frs., of which about half would belong to German societies alone. The amount of these reserves increases every year by about five or six million francs. From this it may be seen that the foreign societies will have to deposit very large amounts in Switzerland.

In virtue of this measure taken by the Federal Council, the Swiss policy holders are secured in regard to the obligations undertaken by the societies in return for the premiums they have paid.

We must observe that France and Germany have anticipated Switzerland in this matter, and many years ago adopted legal provisions similar to the above, indeed, in some respects more severe than those now adopted by Switzerland.

(1) See the article *Agricultural Insurance in Switzerland in 1913* in the number of the *Bulletin of Economic and Social Intelligence*, for November, 1915 (No. 11).



Part III : Credit

SPAIN.

SOME NOTES ON THE WORK AND DEVELOPMENT OF THE " PÓSITOS. "

The work of modernising the " pósitos " and of converting their assets into cash having been begun by the Law of January 29th., 1906, the Royal Commission to which the task was entrusted by that Law has continued its efforts unceasingly since that date and, if it has not completely attained the desired end, has made steady progress in the undertaking. As illustrations of this and as indications of the agricultural and social development of Spain, the following notes are of special interest.

On other occasions we have spoken in this *Bulletin* of the origin and early character of the " pósitos," of the attainment of their highest development in the 16th. century and of their subsequent decline, as well of the deplorable condition into which they fell on account of abuses on the part both of borrowers and of managers, not to speak of the numerous losses incurred through loans made to the public treasury which were not repaid. We have also outlined the main provisions of the Law of 1906, which was passed with the object of reorganising these benevolent institutions, converting them into genuine modern organisations for supplying agricultural credit, as well as the work of the Royal Commission of " Pósitos," established for that purpose, and the principal results obtained. We need not, therefore, repeat what we have already said in previous issues, as the reader will find in them all the information necessary for a study of the question (1).

(1) See the following issues of this *Bulletin*: February, 1912 (pages 51 to 54); May 1913 (pages 137 to 139); June 1914 (pages 72 to 80) and March 1915 (pages 57 to 62).

§ 1. CONDITION AND WORKING OF THE " PÓSITOS " IN 1913 AND 1914.

At the time of the formation, in 1906, of the Royal Commission with the object of " investigating the funds and property of the existing ' pósitos,' realising their credits and converting their securities into cash, the condition of these organisations was such that it was not possible to ascertain accurately the amount of cash which they had in hand, nor of their property, nor the number nor amount of their credits. Nor was it possible to ascertain whether they lent out their funds or not, nor if they were invested as they should have been for agricultural purposes, such was the disorganisation and confusion which reigned in the management of the " pósitos."

The patient and steady work of the Royal Commission has gradually enabled it, in its annual reports, to throw light upon the state of the organisations with which we are dealing, as well as all the modifications and improvements which are being introduced.

According to the two last Reports (1913 and 1914) there were 3,537 " pósitos " in Spain on the 31st. of December, 1913, and 16 others were established in 1914.

During the year 1913 the " pósitos " granted 103,689 loans to the total amount of 16,812,287 pesetas. In 1914 the number of loans granted was 120,446, for a total amount of 19,194,495 pesetas. There was, therefore, in 1914 an increase both in the number and amount of the loans granted by the " pósitos," as compared with 1913. The increase in the number was 16.755 and in amount 2,382,207 pesetas, or 16 % and 14 % respectively.

To give an idea of the increase in the business of the " pósitos," we give the following figures, showing the amount of loans outstanding in each year from 1910 to 1914 :

Year	Loans outstanding (Pesetas)
1910	13,902,260 .
1911	16,307,587
1912	21,626,705
1913	21,357,782
1914	23,274,491

This increase of almost 10 millions of pesetas in the circulating capital of the " pósitos " shows clearly the steady renovation of the institution. To the 16 new " pósitos " established in 1914 the Royal Commission has advanced 25,025 pesetas, the promoters having, on their part, contributed 7,525 pesetas. The total foundation capital of these new organisations was, therefore, 32,550 pesetas, an average of 2,034 pesetas per " pósito."

By the exercise of a steady moral influence, it has been found possible to inculcate in the borrowing farmers habits of punctuality in the fulfilment of their obligations towards the "pósitos" which were formerly unknown to them. Accordingly the figure representing the voluntary repayment of loans continues to grow, thus increasing and regularising the assets of the "pósitos" and reducing the repayments enforced by legal procedure. The following figures show the steady increase of the voluntary repayments :

Year	Voluntary Repayments (Pesetas)
1910	15,239,898
1911	14,027,492
1912	18,003,015
1913	20,683,333

Moreover by reason of this moral progress of the borrowers the number of extensions of loans decreased during the year 1914, since 16,526 extensions of loans to a total amount of 4,079,995 pesetas were granted in that year whereas in 1913 the number of extensions granted was 17,477, and the total amount of the loans concerned 4,545,497 pesetas. This improvement is specially noteworthy since it was obtained notwithstanding the general economic crisis caused by the European War. In all probability, had the farmer been able to export and sell his crop as in normal times, the number of extensions asked for in 1914 would have been even less.

However, if the facts which we have just stated show important progress in the reorganisation of the "pósitos," especially if we bear in mind the deplorable state into which they had fallen, it cannot be said that the work has been completed, since it has not yet been possible to make all the "pósitos" work satisfactorily nor have they liquidated all their assets. Let us see some particulars in regard to this matter.

We have seen that, according to the Report for 1913 of the Royal Commission, there were 3,537 "pósitos" at the end of that year. The same report classifies these "pósitos" as follows in relation to their working.

(1) 2000 "pósitos" which work satisfactorily ; recover and lend out their funds regularly ; manage well their property ; pay their contribution to the Royal Commission and keep their accounts in order.

(2) 875 "pósitos" the working of which is defective in regard to the lending out of their funds, the recovery of debts, the payment of the contribution, and the keeping of the accounts, but which, nevertheless, are improving in their organisation, since they contain progressive elements ;

(3) 662 "pósitos" which may be considered as having only a nominal existence, since they have funds and do not lend them out, do not pay the contribution, and refuse to obey the instructions of the authorities.

In like manner, the total capital of these organisations, which at the same date amounted to 95,238,053 pesetas, may be divided, in round fig-

ures, as follows: about 4 million pesetas in hand and not lent; about 23 million pesetas in outstanding loans which are certainly recoverable; about 53 million pesetas in the hands of debtors on account of old debts, almost all irrecoverable, of which there is no prospect of more than a small portion being repaid. It may be noted, however, that of the amount representing the old debts, the greater part consists of interest which has accumulated for many years and that, consequently the capital really loaned was originally much less.

The provinces in which these debts, difficult to recover, are largest in amount, are the following:

Province	Amount of debts — Pesetas
Almeria	2,055,141
Badajoz.	1,798,752
Cadiz	3,902,583
Canary Isles.	1,235,478
Cordova	7,227,270
Granada	4,388,818
Jaen	7,879,784
Malaga	7,451,244
Seville	7,964,188
Valencia	1,895,412

The recovery of the majority of these credits, in the opinion of the Royal Commission, would be difficult, if not impossible, since they are almost all derived from very old debts to which has accrued interest to an amount much greater than the principal (as we have noted), and the debtors are unable to repay them, either because the original borrowers have disappeared in the time which has elapsed since the loans were granted, or because they have not the means to repay so heavy a debt. In one way or another, the "pósitos" recover something from time to time under this head, so that the amounts are not to be considered as wholly lost.

Having noted some particulars regarding the condition and working of the "pósitos," let us now examine some forms of the work done by the Government and the Royal Commission towards making these organisations comply more fully every day with the modern requirements of agriculture and enlarging their sphere of action.

§ 2. THE REGULATIONS FOR CARRYING OUT THE LAW REGARDING THE FEDERATION OF THE "PÓSITOS."

In view of the fact that a considerable part of the aggregate capital of the "pósitos" — more than 4 million pesetas — remained lying idle even after it had been converted into cash, owing to the want of applicants

for loans in some localities and in others to want of zeal on the part of the managers, the Spanish Government issued a Decree on October 16th., 1914, authorising the formation of federations of "pósitos," in order to give mobility to their capital. We have already studied the Decree in this *Bulletin* (1), and have indicated the advantages which might result from it in the way of diffusing agricultural credit in Spanish rural districts. Although the Decree had been promulgated, however, the Regulations for carrying it out had not then been issued. These Regulations were approved and published by Royal Decree on the 30th. of September of the current year.

In speaking of the Decree regarding the federation of "pósitos" we saw that the bodies which would be formed in accordance with its provisions would have for object the unification and intensification of the action of the "pósitos" of which they would be composed in supplying agricultural credit, extending it to the whole province for the benefit of the farmers of the various districts where the affiliated "pósitos" exist. The Regulations with which we are now dealing indicate more precisely the objects of the provincial federations of "pósitos" as follows: (1) Loan transactions between the affiliated "pósitos;" (2) Making loans out of their funds, when none of the affiliated "pósitos" require them, to agricultural syndicates, rural credit banks, savings banks, popular credit banks, or similar organisations established in the province, which, besides being legally constituted, were included in the register compiled by the Bank of Spain; (3) Making loans of their capital on adequate security for the purpose of land improvement, irrigation works, or the introduction of new crops.

The duration of the loans made by the Federations will be for one year and may be extended for a further year, except for loans of the third class, which will be granted for a term of two years and may be renewed for a further period with the approval of the General Meeting. For such renewal, however, it will be an essential condition that the borrower shall have paid the interest up to date and shall reduce the loan by 25 per cent. when applying for the renewal.

The Regulations lay it down that the capital of the Federations of "Pósitos" shall be made up of:

(a) The funds which each of the affiliated "pósitos" had lying idle in its hands or on current account in the Bank of Spain;

(b) The sums which they may receive by way of gift or legacy from private individuals desirous of encouraging the development of the "pósitos" and of rural credit;

(c) The grants which may be made to them by the Royal Commission of "Pósitos;"

(d) The grants which in their respective estimates may be assigned to the Federations by the Provincial Council or by the Municipal Councils of the province.

In order to be able to ascertain the amount of the funds available under head (a), the Provincial Sections of "Pósitos" are to compile every

(1) See the issue of March 1915, pages 57 to 62.

three months a statement of the sums which the "pósitos" of the province have on deposit in the branches of the Bank of Spain, publishing it in the Official Bulletin and forwarding it at the same time to the Royal Comisión. Corresponding to this provision is that whereby it will be obligatory for the Managing Committees of the "pósitos" to deposit in the branches of the Bank of Spain, in the name of the Committees, the sums which, for want of applicants, have not been lent out during the year. If in making up the accounts for the year it appears that a sum exceeding 15 % of the capital has been lying idle without being so deposited, the committeemen are to pay, out of their own pockets, 4 % interest on the sums left idle.

The Federations of "Pósitos" will be governed by a General Meeting, which will be held at least once a year, and by an Executive Committee consisting of two delegates and presided over by the Chairman of the Provincial Section. The delegates will be elected for three years by the General Meeting of the Federation, and will be eligible for re-election.

The business of the Federations will be carried on in two ways, according as the loans in question are applied for by affiliated "pósitos," or by agricultural syndicates, chambers of agriculture, savings banks or other similar bodies.

When the loans are asked for by one of the affiliated "pósitos," the procedure will be as follows: the "pósitos" which requires to make use of the capital of the Federation, after having so decided either at an ordinary or an extraordinary meeting, will make application to the Executive Committee. The Committee will notify the other "pósitos" of the application received, at the same time asking for particulars, which must relate solely to the guarantee which the Managing Committee of the "pósito" making the application can offer, that Committee being liable to the "pósito" making the loan. The particulars having been received, the Executive Committee will decide in the matter within the space of three days. If the decision is favourable and the application is approved, the Committee will order the transfer of the amount from the "pósito" advancing the money to the "pósito" desiring the loan.

In the second case (that is, in the case of loans to syndicates, savings banks, chambers of agriculture, etc., there being no "pósitos" making application), the amount of the capital to be devoted to this purpose and the terms proposed for the loans to these societies (1) will be advertised in the official Bulletin of the province and the principal provincial newspapers. The bodies which desire to avail themselves of these offers will address themselves, stating the nature of the transaction they propose, to the Executive Committee, which will grant or refuse the loan, after having obtained the necessary particulars.

Membership of one of these Provincial Federations is reserved for the "pósitos" which belong to one and the same Provincial Section and which join the Federation. The other bodies which have transactions with the Federations are considered merely as borrowers.

(1) See the issue of this *Bulletin* previously indicated.

Finally, the Regulations of which we are examining the provisions, lay it down that the Royal Commission of "Pósitos" shall encourage the formation of as many Federations as possible, by carrying on propagandist work to this end, and shall compile an Annual Report on the working of the Federations based on the information which they may supply. The function of the Royal Commission in relation to the Federations will be merely that of inspection, and it will only have power to decide appeals made by any affiliated "pósito" against the decisions of the General Meeting of the Federation to which it belongs.

§ 3. THE ESTABLISHMENT OF THE FIRST PASTORAL "PÓSITO."

As the operations of the "pósitos" originally consisted almost exclusively in making advances of seed to the farmers, the benefits conferred upon one of the most important elements in Spanish agriculture — stock-raising — have always been few or almost none. Even after the work of converting the assets of the "pósitos" into cash was begun, this continued to be the case, notwithstanding that the Law of 1906 indicated amongst the objects of these organisations the granting of loans for facilitating the "acquisition or use of any articles required in agriculture or stock-raising." In essentially pastoral districts, such as Galicia and the Basque Provinces, no "pósito" yet exists.

After the promulgation of the Law of 1906, it was considered that, when once reorganised, the "pósitos" should admit the stockowners to their advantages, and thus, from the beginning, it was suggested to form new institutions, based on the modern organisation introduced by the law, for exclusively pastoral purposes, since the existing "pósitos," being far from the pastoral regions, could be of but little advantage to the pastoral industry.

The Count of Retamoso, one of the first Royal Commissioners of "Pósitos," endeavoured during his term of office to found a pastoral "pósito," without, however, being able to carry out his project. What on that occasion remained merely a project has now been actually carried out, thanks to the combined efforts of the Royal Commission of "Pósitos," at present presided over by the Marquis of Valdeiglesias, and of the General Stockowners' Association, of which the Duke of Bailén is President.

Passing to examine the organisation of this new body, we note first that in its rules the objects are stated to be: (1) to make loans to stockowners, syndicates and co-operative societies, formed for exclusively pastoral purposes: (2) to make loans to the Local Stockowners' Committees, which are duly constituted and in which the liability of the members is unlimited; (3) to make loans to stockowners who are members of the General Stockowners' Association, on mortgage, pledge, or personal guarantee; (4) to act as a savings bank, paying interest which shall not exceed 3%.

" The capital of the " pósito " will be formed by :

- (a) The initial capital of 100,000 pesetas;
- (b) The profits derived from its transactions;
- (c) The grants and gifts which it may receive.

To the formation of the initial capital the Royal Commission of " Pósitos " contributed 50,000 pesetas and the General Stockowners' Association the remaining 50,000 pesetas.

With regard to the operations of the new organisation, its rules lay down the following conditions. The syndicates, stockowners' co-operative societies and Local Committees, will address their applications to the Permanent Committee, accompanied by documents which will show the unlimited liability of the members and the liquid taxable assets which they possess, as well as the taxes which they pay.

A Committee, nominated by the Permanent Committee, will examine the application and will grant or refuse the loan, and no appeal can be made against their decision. The loans will be granted for one year, renewable for another year; interest will be payable at the rate of 1 % per quarter, fractions of a quarter being treated as a quarter.

When the loan is being applied to the acquisition of machinery or requirements for the pastoral industry, or industries derived from it, the " pósito " can advance two thirds of the price, retaining the article purchased as its own property, though in the use of the purchaser, until the price has been paid in full. It will also advance money for the purchase of sires to the live-stock improvement syndicates, the animals purchased forming the security for the repayment of the loans.

The " pósito " can even, in specific cases and with the consent of the Committee, assist the mutual insurance societies, subject to the following conditions : (1) that they are mutual societies of stockowners, that the liability of the members is unlimited, and that they do not exclude losses caused by epidemics; (2) that their rules have been approved by the General Stockowners' Association.

The loans to stockowners who are members of the Association will be made on pledge, on mortgage, or on the joint and several security of the applicant and another person approved by the Committee.

The stockowners who have delivered wool, live stock, or other pastoral produce to the Association for sale on commission, or who graze cattle on the pasture-land or meadows of the Association, will have the right to obtain, if they so desire, 50 % of their value, as an advance from the funds of the " pósito."

No stockowner or society to whom a loan has been granted will be able to obtain another loan until the first has been repaid, unless he specifically applies for an increase, justifying his need and giving a new guarantee.

The management of the " pósito " is entrusted to a special Committee, consisting of six members and nominated from amongst the Permanent Committee. The members of the Permanent Committee will not receive any remuneration and the sums which may be received under this head will be

handed over to the Association to meet the expenses which may be incurred in regard to the "pósito."

The "pósito" will pay to the Royal Commission, by way of contribution, 1 % on the 50,000 pesetas granted by it. In its turn, the "pósito" will retain as remuneration, half of the amount of the interest paid on the loans.

Lastly, we may note that the "pósito" is founded for an indeterminate period. It can be dissolved by resolution of the General Committee of the General Stockowners' Association. In case of the dissolution of the "pósito" the Association will repay to the Royal Commission of "Pósitos" the 50,000 pesetas received from it, with the increase which may have accrued to it.

From what precedes, it will be seen that this first pastoral "pósito," which has just been formed in Spain to encourage stock-raising is still of modest dimensions, as far as the number of stockowners who may aspire to benefit by it is concerned. That is due to the fact that the new organisation is regarded as an experiment. If in practice the new "pósito" fulfil, as is anticipated, the hopes of its founders, it will be able to obtain, later on, a larger capital and thus convert itself into a veritable, though small, pastoral bank. In Spanish rural circles the success of the new organisation is considered assured, in view of the ease and convenience of its operations, the importance and prestige of the General Stockowners' Association, under whose auspices it has been formed, and the capacity and standing of its managers.

The new "pósito" certainly meets a need which was strongly felt and may be the starting point of a form of credit organisation which may bring important improvements and advantages to stock-raising and the industries derived from it.

ITALY.

WORK OF THE LAND CREDIT INSTITUTES IN 1914.

SOURCES:

- CASSA DI RISPARMIO DELLE PROVINCE LOMBARDE IN MILANO: Credito fondiario. Bilancio consuntivo dell'anno 1914. Anno XLVII dell'Esercizio (*Savings Bank of the Lombard Provinces in Milan: Land Credit Department. Balance Sheet for the Year 1914. Forty seventh Working Year*).
- CASSA DI RISPARMIO IN BOLOGNA: Credito fondiario: Resoconto del 1914 (*Savings Bank in Bologna: Land Credit Department: Report for 1914*). Bologna, 1915; Merlani.
- CASSA DI RISPARMIO DELLA CITTÀ DI VERONA: Cassa di Risparmio, Credito fondiario e Fondo pensioni. Bilancio Consuntivo dell'anno 1914 (*Savings Bank of the City of Verona: Savings Bank, Land Credit and Pension Funds Departments. Balance Sheet for the Year 1914*). Verona, 1915; Franchini.
- CREDITO FONDIARIO SARDO IN CAGLIARI: Resoconto dell'anno 1914 (*Sardinian Land Credit Institute in Cagliari: Report for the Year 1914*).
- ISTITUTO ITALIANO DI CREDITO FONDIARIO IN ROMA: Relazione del Consiglio d'amministrazione e dei Sindaci sull'esercizio 1914 (Ventesimo quarto). (*Italian Land Credit Institute in Rome. Report of the Board of Management and the Examiners for the year 1914. Twenty fourth Year*). Rome, 1915; Bolognesi.
- ISTITUTO DELLE OPERE PIE DI SAN PAOLO IN TORINO: Credito fondiario. Conto consuntivo: esercizio 1914 (*Institute of the "Opere Pie di San Paolo" in Turin: Land Credit Department. Balance Sheet for the Year 1914*). Turin, 1915; Società Tipografico-Editrice Nazionale.
- MONTE DEI PASCHI DI SIENA: Conto consuntivo per l'esercizio 1914 (*Siena "Monte dei Paschi": Accounts for the Year 1914*). Siena, 1915; Lazzari.

In the number of this Bulletin for last October we considered the work done in 1914 by the special agricultural credit institutes or those authorized by special laws for this form of credit and we saw that they granted the farmers last year more than 43,000,000 frs. in loans; let us now consider the work done in the year by the land credit institutes, according to the last reports published by them.

§ I. ITALIAN LAND CREDIT INSTITUTE.

In 1914 this Institute, which has existed for 24 years, received 247 applications for loans for 28,127,500 frs. Adding to these those remaining to be dealt with from 1913 (475 for 42,951,500 frs.), and those again taken

into consideration (9 for 642,000 frs.) and those in the case of which application has been made for the amount to be increased (3 for 281,500 frs.) we get for 1914 a total of 734 applications for an amount of 72,002,500 frs.

In satisfaction of 116 of these, definite contracts were passed for a total amount of 10,721,000 frs., with a decrease of 60 loans for 4,481,500 frs., as compared with 1913. Of the loans granted in 1914, 57 for 6,922,500 frs. were granted on the security of rural land, especially in Apulia (12 for 2,323,000 frs.), in Campania (10 for 331,500 frs.), in Sicily (8 for 351,500 frs.), in Venetia (5 for 1,767,500 frs.) and in Emilia (5 for 1,066,000 frs.), and 59 for 3,798,500 frs. on the security of urban land. In this connection, we must observe that in the last five years the loans on urban estate, which for some time exceeded those on rural estate, have been gradually diminishing, so that in 1913 and 1914 those on rural estate preponderated. As regards amount, the loans granted in 1914 were distributed as follows:

		Number	Amount frs.
Up to	10,000 francs	5	45,500
Between	10,500 and 20,000 francs	25	401,000
»	20,500 » 50,000 »	42	1,476,000
»	50,500 » 100,000 »	20	1,599,000
»	100,500 » 500,000 »	22	4,499,500
Above	500,000 francs	2	2,700,000
		116	10,721,000

And they were distributed as follows according to the term for which they were granted.

Years	Number	Amount frs.
From 10 to 15	4	106,500
» 15 » 20	3	132,500
» 20 » 25	5	214,000
» 25 » 30	8	153,000
» 30 » 35	—	—
» 35 » 40	51	3,621,000
» 40 » 45	—	—
» 45 » 50	45	6,494,000
	116	10,721,000

The loans were granted at 4 % interest.

The total number of loans passed from the foundation of the Institute (1891) up to December 31st., 1914 was 3,327, for a total amount of 270,206,550 frs., of which 1,911 for 142,915,300 frs. were granted on the security of rural estate and 1,416 for 127,291,250 frs. on that of urban estate. Dividing them according to the situation of the land mortgaged, we find : loans in North Italy, 139 for 15,199,500 frs. ; in Central Italy, 1,028 for 102,603,100 frs. ; in South Italy, 2,160 for 151,603,950 frs. More than two thirds of these loans were for amounts not exceeding 50,000 frs. Between 1903 and 1914, the loans granted by the Institute amounted to 162,704,550 frs. ; of this amount, 71,965,825 or 44 % were borrowed to extinguish more burdensome mortgage debts and relieve the estates from other real charges. The mortgages paid off in the above period, by means of these loans, amounted to 70,655,936 frs., distributed as follows in regard to the interest paid :

	frs.
From 4 to 6 %	52,858,799
» 6 » 8 %	11,734,264
» 8 » 10 % and higher . . .	1,226,955
Interest not stated	4,835,918

The benefit reaped by landed estate in the twelve years by the extinction of mortgages to the above amount of 70,655,936 frs. is still more apparent when we consider that they were mostly extinguished by means of loans at 3 ½ %. It is especially interesting to consider how the amounts employed for relief from charges and for extinction of burdensome mortgage debts were distributed in the different parts of the Kingdom.

	frs.
North Italy	3,452,970
Central Italy	26,486,401
South Italy	42,026,454
	<hr/>
	71,965,825

It follows, therefore, from these figures that South Italy especially profited by the operations between 1903 and 1914, to the amount of 42,026,454 frs. or about 58 % of the total. North Italy benefited to the amount of 3,452,970 frs. or 5 %, and Central Italy to that of 26,486,401 frs. or 37 %.

§ 2. THE LAND CREDIT DEPARTMENT OF THE SAVINGS BANKS
OF MILAN, BOLOGNA AND VERONA.

In 1914, the Land Credit Department of the *Cassa di Risparmio delle Provincie Lombarde* (Savings Bank of the Lombard Provinces) granted 274 loans for an amount of 19,651,000 frs. Ninety-four loans, for 7,124,000 frs., were granted on rural land, 170 for 11,977,000 frs. on urban land and 10 for 550,000 frs. on land both rural and urban.

Among the provinces that profited most by this credit on the security of rural estate, were especially those of Mantua, 25 loans for 1,615,500 frs., Grosseto, 2 for 770,000 frs., Modena, 6 for 618,000 frs., Udine, 2 for 615,000 frs. and Venice, 3, for 457,000 frs.

More than half the loans (169) were for amounts between five and fifty thousand francs and about half (132) for a period of 40 years.

In 1914 the Land Credit Department of the *Cassa di risparmio di Bologna* granted 89 loans for a total amount of 4,798,000 frs. Of these, 64 for 3,237,000 frs., were secured on urban estate, 19 for 391,000 frs. on rural estate, and 6 for 1,170,000 frs. on estate both rural and urban. Further, 6 loans were for amounts of between 500 frs. and 5,000 frs., 12 for amounts between 5,000 frs. and 10,000 frs., 21 for amounts between 10,000 frs. and 20,000 frs., 22 for amounts between 20,000 frs. and 30,000 frs., 5 for amounts between 30,000 frs. and 40,000 frs., 7 for amounts between 40,000 frs. and 50,000 frs., 8 for amounts between 50,000 frs. and 100,000 frs., and another 8 for amounts exceeding 100,000 frs.

The province that benefited most by this credit was Bologna (78 loans for 4,525,000 frs.).

It must further be mentioned that, of 89 loans, 30 were granted to institutions for building houses for the people, for which purpose this Institute had on December 31st. last lent 5,226 000 frs.

Between the foundation of the institution (1868) and the end of 1914 3,290 loans were passed for a total amount of 127,253,500 frs., with an average amount of 38,679 frs. per loan.

Finally, the Land Credit Institute of the *Cassa di risparmio di Verona* granted in 1914, 67 loans on mortgage for a total amount of 2,061,000 frs., against 108 loans for 3,368,500 frs. in 1914.

Between 1902, its first working year and the end of 1914, 1,011 loans were granted for a total amount of 30,429,500 frs. Of these, 306, for 6,121,000 frs. were granted on the security of urban estate, 638 for 21,880,000 on that of rural estate, and 67 for 2,428,500 on estate both rural and urban. The largest amounts were lent in the province of Verona (6,838,500 frs.), Venice (5,537,500 frs.), Mantua (4,589,000 frs.) and Padua (3,376,500 frs.).

§ 3. THE LAND CREDIT DEPARTMENTS OF THE TURIN INSTITUTE OF "OPERE PIE DI S. PAOLO" AND THE SIENA "MONTE DEI PASCHI," AND THE SARDINIAN LAND CREDIT INSTITUTE IN CAGLIARI.

The loans concluded in 1914 by the Land Credit Department of the *Istituto delle Opere Pie di S. Paolo* in Turin were more numerous and less in amount than in 1913. Indeed, while in 1913 it granted 195 loans for 9,362,500 frs., in 1914, 204 loans were granted frs. 7,006,500 frs., that is to say 9 loans more and 2,356,000 frs. less.

As regards amount, the loans granted in 1914 were distributed as follows:

	Number	Amount
Loans of not more than 10,000 frs.	94	568,000
» » between 10,500 frs. and 20,000 frs. . .	37	601,000
» » » 20,500 frs. » 100,000 frs. . .	59	2,830,500
» » » 100,500 frs. » 500,000 frs. . .	14	3,007,000
Total . . .	204	7,006,500

In regard to the terms for which they were lent, they may be classified as under:

	Number	Amount
Loans for from 10 to 20 years	23	509,000
» » between 20 and 35 years	23	604,000
» » » 35 and 50 »	158	5,893,500
Total . . .	204	7,006,500

Finally, in regard to the nature of the estate mortgaged, we find:

Loans on Urban Estate		Loans on Rural Estate		Loans on both Urban and Rural Estate		Total	
Number	Amount	Number	Amount	Number	Amount	Number	Amount
184	4,833,000	16	1,890,500	4	283,000	204	7,006,500

The largest number of loans were received in the provinces of Genoa (100 for 1,453,000 frs.), Turin (55 for 1,821,500 frs.) and Rome (16 for 598,500 frs.).

We find that the Land Credit Department of the *Monte dei Paschi di Siena* in 1914 passed 202 loans for the total amount of 5,116,500 frs., 79 of them (2,609,500 frs.) secured on rural land, 116 (2,348,500 frs.) on urban land and 7 (158,500 frs.) on both urban and rural land.

The province of Forlì received the largest number of loans (38 for 325,500 frs.), and then the provinces of Perugia (26 for 525,500 frs.), Pisa (21 for 709,500 frs.) and Pesaro and Urbino (10 for 237,000 frs.).

Since the date of its foundation (1868) and up to December 31st., 1914, this Institute granted 4,837 loans for a total amount of 154,143,500 frs., 2,236 for 79,735,000 frs. on rural estate, 1,722 for 32,624,500 on urban estate, and 879 for 41,786,000 frs. on estate both urban and rural.

Finally, the *Credito fondiario sardo in Cagliari* granted mortgage loans in the year to the amount of 220,000 frs. The amount of its loans on December 31st., was 2,316,640 and the value of its bonds in circulation was 2,382,500 frs.

* * *

The seven land credit institutes working in Italy thus granted in 1914 mortgage loans for a total amount of 49,583,000 frs. against 62,846,500 frs. in 1913, 76,249,750 frs. in 1912, 78,896,000 frs. in 1911, 74,111,500 frs. in 1910 and 59,713,800 frs. in 1909.



Part IV: Miscellaneous

UNITED STATES.

THE NEEDS OF AMERICAN FARM WOMEN: AN ENQUIRY BY THE DEPARTMENT OF AGRICULTURE.

SOURCES :

- SOCIAL AND LABOR NEEDS OF FARM WOMEN. United States Department of Agriculture, Report No. 103, Washington: Government Printing Office, 1915.
- DOMESTIC NEEDS OF FARM WOMEN. United States Department of Agriculture, Report No. 104, Washington: Government Printing Office, 1915.
- EDUCATIONAL NEEDS OF FARM WOMEN. United States Department of Agriculture, Report No. 105, Washington: Government Printing Office, 1915.
- ECONOMIC NEEDS OF FARM WOMEN. United States Department of Agriculture, Report No. 106, Washington: Government Printing Office, 1915.
- WHAT THE DEPARTMENT OF AGRICULTURE IS DOING FOR THE HOUSEKEEPER. C. F. Langworthy. Yearbook of the United States Department of Agriculture, 1913. Washington: Government Printing Office, 1914.
- REPORT OF THE SECRETARY OF AGRICULTURE FOR 1913. Yearbook of the United States Department of Agriculture. Washington: Government Printing Office, 1914.
- A PRACTICAL NATIONAL MARKETING ORGANIZATION AND RURAL CREDIT SYSTEM FOR THE UNITED STATES. A Hearing before the State Department, June 21, 1915. Washington: Government Printing Office, 1915.

INTRODUCTION.

In his annual Report to the President (Dec. 1st, 1913), the Secretary of Agriculture of the United States devoted a special paragraph to the "Woman on the Farm", from which we quote the following :

"The woman on the farm is a most important economic factor in agriculture. Her domestic work undoubtedly has a direct bearing on the effi-

ciency of the field workers, her handling of the home and its surroundings contributes to the cash intake, and, in addition, hers is largely the responsibility for contributing the social and other features which make farm life satisfactory and pleasurable... The facts that the woman's work and time have a real monetary value and that her strength is not unlimited have not been given the consideration they deserve. As a result on many farms where there is always money enough to buy the latest agricultural appliances, there is seldom a surplus to provide the woman in her productive work with power machinery that will lighten her physical labor, running water that will relieve her of the burden of carrying from the pump all water used in the household, or kitchen equipment and household devices that will save her time, increase her efficiency, and enable her to make important monetary saving. The Department believes that intelligent help to women in matters of home management will contribute directly to the agricultural success of the farm. It purposes, therefore, to ask Congress for means and authority to make more complete studies of domestic conditions on the farm, to experiment with labor-saving devices and methods, and to study completely the question of practical sanitation and hygienic protection for the farm family."

In making this recommendation the Secretary of Agriculture is faithful to the traditions of his Department, the activities of which are not only legislative and administrative, but more especially educational, on broad lines of national development and conservation. The general activities of the Department are, indeed, defined as follows in the Yearbook for 1913:

"Broadly speaking, the Department of Agriculture is concerned with such matters as the production of crops, timber, and flocks and herds, with studies of plant and animal diseases and their control, with the establishment of standards of quality, with the protection of agricultural products from adulteration, with the processes for converting raw products of agriculture into finished products ready for use, with insect enemies and their control, with agricultural engineering problems, with rural economics, with rural life and activities, and with educational problems pertaining to all of these. Information is gathered in the field, in the laboratory, and in other ways, and the results are spread broadcast by means of publications, demonstration work, through the agricultural colleges, and through other organised methods of education.

"In answering the questions which arise in the minds of the producers on the farms the investigator almost inevitably furnishes information about the commodities which the housekeepers buy and use and whose composition they should understand. Help for the housekeeper, who directs the spending of the family income, or, as the economist would put it, represents consumption, is, in fact, not only one of the inevitable by-products, but one of the very valuable main products of agricultural research, and is clearly recognised as such by the Department."

To ascertain the fields in which farm women desire specific assistance, the Department of Agriculture addressed, on October 1st, 1913, a letter of inquiry to the housewives of 55,000 progressive farmers in all the

counties of the United States. This letter asked no questions and left every woman free to discuss any need which occurred to her. She was invited to take the matter up with her neighbours, and make a reply which represented not merely her personal need but the recognised need of the women of her community. Replies were received from over 2,000 women living in all parts of the country, and a careful examination of these replies led to the publication of four reports on the social and labour, domestic, educational, and economic needs of the farm housewife. These reports consist mostly of classified extracts from the answers received by the Department, and throw valuable light on the economic and social status and the special needs and aspirations of the American farm woman.

One of the reasons given by the Department for the publication of these reports is that they contain suggestions which may prove helpful to the State agencies in carrying out the recently enacted Smith-Lever Extension Act, (May 8, 1914). This act, starting with a grant of \$10,000 of Federal moneys to each State for agricultural extension and educational purposes, will, by increasing appropriations, make available in 1922 and thereafter a sum of \$4,580,000 of Federal funds for such purposes. Under this act the States must duplicate with their funds all but \$480,000 of each annual Federal appropriation, so that after 1921, if the States elect to receive their full quota, the sum of \$8,660,000 will be spent each year in practical on-the-farm education. In the first nine fiscal years a total of \$41,920,000 should be directed to this purpose.

The funds appropriated under this Act are given to the State agricultural colleges to enable them to employ men and women as county agents and experts who will move about among the farming people, demonstrate good methods of agriculture and home economics, co-operate with them in studying their farm and home problems, and assist them in the adoption of better methods on their farms or in their homes.

Already many of the colleges have appointed women as extension experts in home economics, and others are planning to do so. In nearly all the Southern States women county agents are already at work in connection with the demonstration work carried on by the agricultural colleges and the United States Department of Agriculture. These agents will enroll women in home demonstration work and will continue to conduct girl's clubs. They will have the women demonstrate the preparation and use of products from canning clubs, poultry clubs, pig clubs, and the winter garden. Accompanying the use of the club products, the women on the farms will be shown how to make or secure labour-saving devices and conveniences. They will also be encouraged by the county agents to find and extend to others the best methods of work and conveniences already discovered and in use in their communities. The number of home economics experts who are doing work among the farm women is being rapidly increased. It is hoped that before long there will be women agents in every county in the United States.

§ I. SOCIAL NEEDS OF FARM WOMEN.

Let us now examine the social conditions of the American farm woman as revealed by herself in the letters published in the first of these reports.

The first impression received on reading this interesting human document is that the standard of life of the American farm woman is high indeed when compared to conditions generally prevailing among her sisters in other countries. When asked to state her needs, it is not to the necessities of life that she lays claim, but to its comforts and pleasures. The loneliness, isolation, and lack of social and educational opportunity on the farm, these form the main text of letters from all parts of the United States. The following quotations are typical:

New York. — "The hardest phase of country life for the women in my neighborhood is the monotony, with no means or opportunity for any social life whatever... Life is dreary indeed with never an afternoon or an evening spent away from home."

Ohio. — "In all these years I have never had a vacation, never belonged to a club or any organisation, and never went to church or an entertainment; had no time to visit a neighbor — just worked early and late with a snatch for reading between."

Wisconsin. — "The woman has no time to give to the little feminine accomplishments enjoyed by women and no opportunity to use the sitting room and its easy chairs."

But that there is a bright social side to American farm life is shown by the following from an Iowa correspondant :

"The farmers' wives on farms in Iowa have rural delivery, phones to call up any neighbor, and electric machinery to drive the washer, pump and cream-separator. And now with the auto to take them where they please, with the good moral atmosphere in which to raise a family, the long winter evenings with the family at home, with good books and papers, the country beats the city, with all its nervous strain, all to pieces."

The following quotation, in contrast with the spirit of many others, shows a wholesome appreciation of the fact that a government cannot legislate on "happiness."

"I really do not see what the government could do to better my condition. The government owes me protection of life and property, but my happiness I must work out myself. Law-making to affect our home and family affairs is not necessary; we make our own laws in these matters."

(1) *Womens' Clubs and Co-operation.*

As a remedy for the social drawbacks complained of, many of the letters urge co-operation among women in the form of neighbourhood clubs. These, it is claimed, would promote better education in practical matters

and fuller social and intellectual life. This idea is clearly expressed by a Connecticut correspondent :

"The department should aid farmers' wives in the formation of clubs that will bring them together for sociability, recreation, and a reasonable amount of intellectual intercourse. A nearby country community has a club of the sort we mean. It will have a certain topic assigned for each meeting, music or possibly readings or recitations, and then a kind of open forum for the discussion of everything, from the chestnut blight to the Volturmo disaster. Refreshments are served. This kind of thing brings farm women out of their isolation into an atmosphere of clubability and cheery common interest. The monotony of farm life is one of the trials women have to bear; the Department may help to relieve it."

Many correspondents express the idea that such clubs, which might be a by-product of the rural church and the rural school, would secure to women opportunities for social intercourse and also, if connected with lending libraries and reading classes, might train them to read intelligently.

In the Middle-Western and North-Western States, where population is scanty and distances great, the dull monotony of the farmers' life is the burden of complaint. "We want suggestions for high-grade amusements for leisure hours by means of such moderate priced talking-machines and picture shows as will best develop individual character and give knowledge of the great outside world", writes a Colorado woman. Another suggestion made by many is for the organisation of village rest-rooms where farmers' wives could meet when going to market in town.

(2) *The Labour Question.*

The difficulty and, in many cases, the impossibility of securing any kind of domestic help in many districts entails long hours and overwork for the housewife, and the Department is urged by its correspondents to place immigrants in farm occupations. "Why can't an agricultural official be at Ellis Island and get hold of the immigrants who want and ought to farm, and by keeping in touch with farmers in every State know where to send them?", writes an Ohio woman.

With regard to this the Report points out that the Division of Information in the Bureau of Immigration, United States Department of Labour, is engaged in an effort to promote a beneficial distribution of admitted aliens and other residents. With that end in view the Department of Labour has established 18 distributing centres, covering the entire country, with an office or offices in each zone. The particular features of this undertaking of interest to women are the effort to direct from congested centres of population to the farms and rural communities men, women and girls to engage in farm or domestic work, and the opportunities that will be presented to women to engage in seasonal occupations on farms or in other rural communities.

Replies received from the Southern States indicate the poorer condition of those farming populations as compared with those in other sections.

They complain of the heavy field work, cotton hoeing and picking which falls to the lot of the Southern farm woman, particularly to the wife of the poor tenant farmer. One correspondent, a man, writes :

" It is the wife of the tenant and poor farmer who needs help. She has a hard roe to hoe. She has very few labor-saving implements, no electrical or gasoline power, but does nearly all her work by "main strength and awkwardness." Thousands rise at 4 a. m. and peg away until 10 p. m. The Union man and "industrial worker" does his eight hours... and then agitates for shorter hours and more pay, but the wife of the tenant or poor farmer has no time to agitate, strike, or walk out. Her pay is plain board and clothing. Very few ever see a State fair, get a week's vacation, or even an auto ride. "

And again :

" The condition of the farm women of the South is most deplorable... The routine of the southern farm woman is about as follows : at this time of the year she is up at 5 a. m. preparing the breakfast, often building up her own fire ; milks the cows, cares for the milk, churns the cream by hand. Puts the house in order, gets the dinner, eats with the family at noon : leaves the house in disorder, goes to the cotton field and picks cotton all the afternoon, often dragging a weight of 60 pounds along the ground. At about sundown she goes to the farmhouse, puts the house in order, washes the dishes left over from the noon meal, prepares the supper, most of the time too tired to eat ; gets the children to bed, and falls asleep herself, and so it goes on from day to day. Somehow she finds the time to do the washing and ironing, mending, knitting, and darning in between times. ...The above description applies to negroes, to white tenants, and to the young farmers who are trying to build their homes. "

(3) *Co-operation in the Home.*

The successful operation of co-operative creameries and cheese factories suggests to many housewives the application of the same principles to housework. Co-operative laundries and bakeries are advocated, and the Department is asked to supply information as to the cost of installing such institutions. Also the co-operative boarding of farm-hands is suggested as a means of relief for the overworked farm-woman. These ideas are expressed by a number of women from all sections. We quote the following :

" The only thing in sight to lighten the burden of the indoor worker is co-operation. We have arrived at a place where individual effort in many things has proven to be wasteful in cash and human energy, and we are making new discoveries along that line. 'The thing that presents itself forcibly to my mind is a community plant for doing the laundry work, making the sausage, rendering the lard, canning and evaporation of fruits and vegetables for the farmer's use. Such a plant for the accommodation of from 25 to 50 families, or, in other words, one for the convenience of the patrons of each district school, would cost from \$ 700 to \$ 1,000, building included. "

Michigan. — "Co-operation in housework we believe is still in the experimental stage, but if it could be profitably established in a community it would leave the housewife much more time to devote to her children, the garden, and her chickens."

(4) *Roads, Mails and Telephones.*

Coming down to practical matters in which the Department could take the lead, women and men in almost every State hold that the greatest service which it could render to the farm population would be the systematic improvement of country roads. Many make a point that roads especially adapted to winter conditions would have a very important social effect. During the summer months the farm population, especially the women, are too busy to do much visiting and by the time the crops are marketed and some leisure and recreation are possible, the roads are so muddy that it is impossible or very difficult to drive over them, with the result that during the winter months the women can seldom reach a town or even visit their neighbours.

Next to this comes the demand for the extension of rural free delivery of mails. However, it is pointed out that since the Department made its enquiry a number of changes in rural delivery systems and in the parcel post service have been made which, in a large measure, comply with these requests.

The value of the telephone as an assistance in the marketing of their produce as well as its use as a social factor, is dwelt on by several correspondents who urge the advantages of Government ownership. On this head a Kansas woman writes :

"Give us better telephone service. Here in Kansas the farmhouses are from one quarter to half a mile apart and often from 1 to 2 miles to the neighbor we are most interested in, so you can readily see that a good telephone service means much not only to the farm woman but to the farm also. We are now supplied with several different systems. Some have no connection whatever with each other, others connect by charging toll. We are 18 miles from a city. The telephone toll is 15 cents. The prices of our farm products are regulated by the city, but we cannot afford to pay the toll to inquire the price of poultry or fat stock many times before starting with a load, so we have to depend on the local buyer who charges a big commission."

§ 2. DOMESTIC NEEDS OF FARM WOMEN.

Perhaps no section of the report gives so vivid an idea of the difference in the standard of comfort of the American and European farm-woman as the one dealing with domestic needs. Conveniences which are only just

beginning to enter the homes of the well-to-do city dweller in Europe are here referred to as necessities, and their absence is regarded as a hardship.

The peculiar American genius for labour-saving machinery is here brought to bear on the home, and mechanical devices for washing, cooking, cleaning, etc., are claimed by the American housewife as her due and their extensive application is expected to result in time and opportunity for social intercourse and intellectual development by means of which the household drudge will evolve into the business partner of her husband and the educator of her children.

(1) *House Planning and the Installation of Labour-saving Machinery.*

Many correspondents ask the Department to send out plans for the construction of model farmhouses which will be cheap, convenient, and attractive.

"The country houses are ill planned with very few modern conveniences. The men don't care how hard the women work to do their tasks if only they themselves are provided with food regularly and their own comfort looked after. The fact that women are forced to go pump, and carry water from the well, that they work in dark, poorly lighted rooms, that they mop hardwood floors, take millions of needless steps a year to accomplish their work because of the way the house is planned, that they spend hours upon hours a year cleaning dirty kerosene lamps and lanterns that give no light after they are cleaned, that their whole house is infested with flies in summer because porches are not screened — all these facts and many more unpleasant conditions matter not to the men." So writes a New York farm-wife, to quote only one of many similar letters.

The desire for a more attractive home is evidently strong and widespread. In addition to seeds, bulletins and books on the most attractive ways of laying out grounds are requested by many. The feeling is general that the attractiveness of one's surroundings is of more importance than the practical farmer is inclined to consider, and that the Government might, therefore, take steps to remedy the consequent neglect.

That any device which will lessen labour in the fields is purchased without hesitation but that no labour-saving devices are introduced into the home is an almost universal grievance. Among the appliances for which there appears to be the most demand are vacuum-cleaners, washers, wringers, separators, power for lighting and various other purposes, better systems of heating, oil-stoves, gasoline or electric irons, etc. We quote at random from a few typical letters received on this head:

Massachusetts. — "The problem is to awaken a different ideal of farm life — an ideal that gradually, and with the new generations, will set her part in its proper relation to that of the farm man, and will give effective and intelligent attention to providing efficient devices and conveniences for her use. It will try to lead her out of old customs into employing these better conveniences and to give intelligent thought to the planning of her work."

so that she may have it well in hand with time for relaxation and other interests."

Connecticut. — "The Department should demonstrate and then approve in some way, as they see fit, the following: the best cookstove, one that will do the best work with the least fuel, coal or wood; also washing machines, dishwashers, vacuum sweepers, etc. As it is, none of these machines have a stamp of approval. Agents sell to all who will buy, and the result is thousands of dollars are invested in worthless goods that soon find a resting place in the garret, and the poor housewife struggles harder than before, for often the money to buy this needed help has been borrowed, which makes another weight to an already heavy burden."

Michigan. — "There are no modern conveniences for her use, such as water in the house, bath, modern lights, vacuum-cleaners, etc., and often not even such unexpensive things as oilstoves, washing machine, gasoline iron, breadmixer, and many other such items which help so much to lighten the woman's work, while the men have all the modern machinery and farm-implements which their work requires."

The Department is requested to publish lists of practical and efficient household devices; to explain the general principles involved in them; to educate the farmer to the need and economic advantage of supplying his women folk with such conveniences. In reply to these requests the Report points out that a study of household labour is at present being carried on by the Nutrition Investigations Office of the Department. Experimental data are being collected regarding the lessening of labour, standardisation of methods, and equipment for the processes of cooking, laundry work, cleaning, etc., and the most convenient height for the work table, sink, stove, laundry tubs, ironing board, etc. Attention is also being given to the placing of the equipment of the kitchen, pantry, laundry, and storeroom or cellar so as to secure greater convenience and fewer steps in housework. It is proposed also to study the relative efficiency, convenience, durability, and ease of cleaning of various articles of household equipment, with a view to standardising the same. Information is also being collected as to the efficiency, care and use of labour-saving machinery of special interest to the housekeeper, such as washing machines, vacuum-cleaners, buffing and polishing machines, power knife sharpeners, steam cookers, etc. Information on these matters has been supplied through correspondence and conference, and bulletins are planned as a result of projects now under consideration.

Closely connected with the question of labour-saving devices in the home is the question of securing cheap power for the many purposes to which it can now be put. Many argue that the water power which is now going to waste could be made to generate enough electric power to relieve the housewife of her most laborious and distasteful work; it would run washers and wringers, pump water, operate cream separators and churns, light, heat, and cook.

These ideas are expressed by a number of correspondents from all sections of the Union. We quote the following from a Kansas woman:

“The thing she needs in this day and time is electricity. Then when her house is lighted, her cream separated and churned, her washing, ironing, and sweeping, her sewing machine run by the same power, and she relieved from the drudgery of washing and filling lamps, lifting and washing jars, pans, and all those other old hard things, she can have some time for a social life and the improvement of her mind. The only way I can see is for the Government to furnish, at a reasonable price, electricity to every farm ”.

(2) *Water supply, Heating, Lighting, and Sanitation.*

No correspondents write with greater emphasis and conviction than those who treat of the problem of water supply. Over and over again it is stated that an adequate water supply in every farm house would be the greatest boon that could be given the rural population. Requests are numerous for authoritative descriptions of plumbing systems that can be installed economically and with home labour, and the hygienic necessity of such improvements is dwelt on at length.

There is also a general feeling that the old-fashioned oil-lamps and wood or coal ranges are antiquated and should be replaced by electric lamps and heaters.

An urgent plea also comes from the American farm-woman for better education on sanitation and hygiene. The proper ventilation of the home, the construction and use of the “septic tank,” the removal of manure and the destruction of the house-fly are all matters on which she asks the Department for information.

(3) *Home Economics.*

“We hear so much about ‘balanced rations’ for farm animals of all kinds, why not apply it to the human race ” writes a Michigan woman. And from North Carolina comes the request :

“I want first to understand how to prepare, cook and serve a balanced ration to my family. This may be done by the Government sending us lessons in so simple a language that we young women who have married and are trying to raise a family on less than a common-school education can take it in. I have read some on the subject ; the ratios and scientific words I can’t take in. ”

Again from Illinois comes the appeal :

“Those of us who are older and missed the advantages of domestic science would like to know something of a balanced ration for our families. I know something of this but ought to know more, as our children are the most important crop we have. ”

An Indiana woman certainly looks upon the Department in the light of “guide, philosopher, and friend ” when she writes : . . .

"Give us recipes for good wholesome meals to be served three times a day, and such that when an unexpected guest arrives at the last minute he may be invited to dine with us without extra work or embarrassment."

Nor has Uncle Sam been deaf to the request, for the Report states that "for some 20 years past the Department of Agriculture through its Nutrition Investigations, has carried on a study of the value of agricultural products as food in the home. This work has included studies on the nutritive value and digestibility of foods, their preparation for the table, the planning of meals, dietetics in the household in the country and in town, and in institutions, the care of food in the home, the prevention of household wastes, and numerous other related topics"; while the demand for a government cookery book has been met by the publication of a whole series of bulletins on foods and their preparation, including No. 11, "American Foods and Cooking," popularly known as "Uncle Sam's Cook Book."

(4) *Medical Assistance.*

In the important matter of medical attendance and care of the sick it would seem that the American farmer and his family are behind the European. Many writers complain bitterly of the large fees, up to \$25, charged by physicians called to the farm, and frankly state that medical and dental attention is beyond the average farmer's reach. It is pointed out that in cases of swine fever or other animal diseases the government helps with advice or sends a specialist to their assistance, but that when human life is concerned the farmers have to take their chances, and face illness and emergency in helpless ignorance.

Many correspondents strongly advocate the provision of rural nurses and medical inspection of country schools as means of preventing and combating disease. At present this need is met only by the American National Red Cross through its town and country nursing service; but this service should be extended and made available throughout the country districts. This opinion is expressed by a number of women. We quote the following:

North Dakota. — "The greatest need in our community, which is situated in prairie country, subjected to terrible blizzards, and with roads almost impassable or no roads at all, is rural nurses. Women on homesteads often die in childbirth, and the life of the little stranger is often lost also, because of no doctor and no nurse. If the department could find a way to have a rural nurse system established it would be the best assistance for the women in this locality ever known, where we sometimes have to go 30 or 40 miles to a doctor, and by saving the lives of the women and children who could estimate the hundreds of thousands of lives saved for the nation?."

In this connection, the International Congress of Farm Women, held at Oklahoma in 1913, passed a resolution asking "that all possible assistance and encouragement be given to rural nursing as inaugurated by the American Red Cross Association."

In the matter of sanitation, the Report points out that the United States Public Health service stands ready to supply expert advice on all matters pertaining to rural sanitation and to furnish a number of publications dealing with the nature, treatment, and prevention of the more serious diseases. The Department of Agriculture urges organisations of women to take up these questions and to become intelligent guides in their communities on matters of public health.

§ 3. THE NEED FOR EDUCATIONAL FACILITIES.

Letters from all over the country dwell on the importance of education in the common schools in agriculture and home economics. Under the present system, many writers say, the school educates the young not for their life-work but away from it. In particular the establishment of agricultural high schools in rural districts is very generally urged. At present the tendency is for those who wish further development to seek it in the cities. Rural high schools, accessible to all country boys and girls, and preparing them for a useful country life, appeal to many as the remedy for this condition. In these schools it is strongly urged that domestic science for girls play an important part. Needlework, cooking, canning, book-keeping, every branch of home management should be taught as thoroughly and as practically as agriculture, and the students of each should be fitted to be self-supporting in much the same way.

A characteristic form of agricultural education which is being developed in the United States is that of agricultural clubs for children. The Department of Agriculture advises women to organise the boys and girls in their rural communities into such clubs, the purpose of which is to teach advanced methods of farming, animal husbandry, and home making in a practical way which yields a monetary profit to the children taking a part in the work. These clubs, in addition, supply certain social features which are very desirable for the young people of country districts, and they aid the children to develop the resources of the farms, to improve the quality of country life, and to become economically independent.

The girls are interested in the canning, gardening, apple, poultry and pig raising clubs; the boys in the clubs for raising corn, potatoes, pigs, apples, peanuts, etc.

In the boys and girls club work, up to and including 1914, there was an enrollment of 250,000 young people, the work among girls being in charge of women county agents and that among boys being directed by the men county agents.

The 4,202 girls who sent in reports put up 1,032,115 cans of tomatoes and 522,147 cans of other products worth \$180,420.05. On two tenth-acre plots two girls produced and sold vegetables to the value of \$243.86, at a profit of \$214.12. This work trains girls to become efficient home-makers, to develop the resources of the farm, to improve the quality of country life, and to become economically independent.

The report also calls attention to the itinerant schools of agriculture and home economics which provide for local classes of ten or more farmers or farm women for the study of some topic of special interest to the community. A special form of such schools has been devised by the Department and is now being tried experimentally in co-operation with the State agricultural colleges.

Among the suggestions on educational lines made by the women we note the proposal that the Department should aid in developing rural circulating libraries ; should advise on courses of reading ; should make out a course of study dealing with subjects of interest to women in the country ; should provide courses of lectures in rural districts ; while a number of writers urge the Department to publish a weekly or monthly periodical dealing exclusively with matters of interest to women on the farm.

§ 4. THE ECONOMIC NEEDS OF FARMWOMEN.

Undoubtedly the section of the report which deals with the economic needs of women is the one which gets at the root of most of the troubles complained of, for the farm woman's position as a social, educational and labour unit must necessarily depend on the economic status of the farmer and of the agricultural industry as a whole. Many of the women correspondents show themselves to be fully alive to this fact.

Writers representing 46 States took the position that women's work on the farm is not adequately recognised as an important factor in farm production and farm profit. The home and farm it is claimed are parts of the same business, but the man does not feel that his wife is a co-worker is entitled to some share of the cash secured by their joint efforts. One woman writes in favor of legislation which " would require the husband to divide the whole income with his wife ". Another writes: " Make it illegal for a man to make his wife work like a slave to cook for from 2 to 10 regular workmen " ; while a Kansas woman voices as follows the grievance of the farmer's wife at official failure to recognise the importance of her share of the work ;

" In taking the 1910 census the Census Bureau failed to find a name that would include cook, waitress, dishwasher, dairy maid, seamstress, laundress and baby-tender, and so they assigned 'no occupation' to the farmer's wife " .

Several women claim that if the farmer's wife were to have her due share of the joint earnings it would solve her domestic problems as it " would enable her to install up-to-date labor-saving devices of her own liking. " Again the demand for better vocational training is linked up by correspondents with the economic question, as they look to education as a means of developing gainful handicrafts and home industries which would give the woman some independent command of money.

(1) The Problem of Credit.

But while many consider the economic question exclusively from the woman's standpoint, others take a broader view of the problem. Many wives write that their husbands are entirely considerate and wish earnestly to lessen the drudgery of their lot, but that they simply cannot make enough money to do more than provide the necessities. This condition they attribute to high interest rates and to the low price the farmer gets for his produce.

Judging from these letters a large number of farmers at the end of the year have to borrow money at high rates of interest and on short term mortgages to provide food for their families and to purchase farm requisites. Many are living a year ahead of their incomes, and the returns from their crops barely suffice to wipe out the indebtedness and meet the interest charges incurred to grow the same.

Not only must the farmers pay from 10 to 12 per cent for money, but in addition they are required to pay a bonus which, some state, brings the rate of interest up to 25 per cent. Therefore the women plead for the establishment of some financial system which will relieve the farmer from this burden and from the vicious credit purchase methods now prevailing. Many urge the Government to lend money directly to the farmer on farm mortgages at 3, 4 or 5 per cent, and on long-term paper, making the loans repayable on the amortisation plan.

The two following quotations are typical of the many letters received on this subject :

North Dakota. — "I would suggest that government should make some arrangement to assist the farmers with cheaper money, say 5 to 6 per cent, instead of what the farmer has to pay now, 8 per cent being the smallest on personal property. When poor people need money very badly the banks have been holding them up for 40 per cent to 25 per cent bonus every six months, and 12 per cent on top of this. In this way expenses get too heavy and really the biggest burden is thrown on the women."

Kansas. — "Bettering the farm woman's condition depends very largely on bettering the farmers' financial condition. In adverse seasons the farmers must pay bankers exorbitant interest, and even then may have to sacrifice or lose his stock or farm. If we farmers could get government money on our occupied improved farms — not to exceed 160 acres — at the same rate the banker gets his money it would enable us to tide over adverse years without paying him 6 to 8 per cent more than he pays, or sacrifice our stock or farm to him... These loans could be made under the supervision of the Department of Agriculture, and in case of default the land would automatically revert back to the Government."

The Report points out, however, that many of these correspondents seem to think that a low rate of interest would, in itself, be a solution of their difficulties. They believe that if only money could be borrowed at 4 or 5 per cent on long time it would be a simple matter to go to the Bank,

obtain cash, and put it to what might be called non-productive improvements. This shows that the American farm woman is not yet educated up to the principle which the Department, through its Bulletins, is trying to impress on the farmer, *i. e.*, that "borrowing is safe and desirable only when the money borrowed is to be used in such a way as to yield a return that will meet principal and interest and give the borrower an actual profit "

(2) *Defective Marketing.*

While the above criticism undoubtedly holds good of several of the replies published in the report, many of the correspondents show that they have a sound grasp of the situation. They complain that lack of proper credit facilities forces the farmer to market his produce in an uneconomic manner. There is a very general feeling on the part of the farm-woman that the producer is not getting his fair share of the prices which the consumer pays. Women particularly complain that they get only 13 cents a dozen for eggs in certain sections, when eggs at the nearest store retail at nearly twice that amount ; and similar complaints hold good for the other produce of the farm. A woman in Idaho writes :

" Last year we sold our potatoes for 27 cents a hundred pounds and sack costs 8 cents. Some farmers put a slip of paper in the sack with their address for the consumer to let them know what they pay for the same, and the answer was \$ 1, \$ 1.50, and \$ 2 a hundred pounds. "

The following is from a New Mexico correspondent :

" In Laredo, Tex., onions were sold by the growers at 2 cents per pound ; the next morning the same onions sold at Austin at 15 cents per pound. Again tomatoes were sold one day at two-thirds of a cent each in Palestine, Tex., and the next morning were sold at Austin at 5 cents each. In each case the producer received 13 per cent. of the selling price, while 87 per cent. was divided among the railroads and middlemen. Potatoes are frequently rotting in the fields and on track while many people would be glad to pay the producer more than he has been receiving for them. At the present time I am paying \$ 3 per 100 pounds of potatoes, and my father in another State is selling them at 40 cents per bushel and many times less... The Government should establish an effective agency for the study of the problems of marketing and for rational methods of meeting this greatest of all problems."

This call on the Government to assist the farmers devise a better, more economical, and more profitable system of marketing is repeated over and over again by correspondents from all sections of the Union. Help the farmer to help himself by getting a fair price for his produce, or rather by getting his fair share of the price which the consumer is already paying, and all the rest will follow, or as a New York farm housewife writes :

" Bend your energies toward giving us farmers more than 35 cents out of the consumer's dollar, and we can, when we get our just share, do

for ourselves the things needed better than the Department of Agriculture can do for us. We have too much paternalism in Government now."

CONCLUSION.

After reviewing this wide miscellany of suggestions and requests made by the women who have replied to the Department's inquiry, we may conclude that three main needs emerge from the report :

- (1) a suitable system of rural credits ;
- (2) effective organisation for the economic marketing of farm products;
- (3) increased facilities for vocational training with a special view to relieving the drudgery of household work by the application of standardised methods and labour-saving devices.

The first of these problems has been the subject of anxious study by the government and by Congress for the past two years, and it is expected that legislation on this head will be enacted at the forthcoming session of Congress.

The second problem, that of marketing, has been studied by the Department through its recently organised "Office of Markets". Valuable information has been collected and disseminated through bulletins, and an active movement is now on foot in the States in favor of a national marketing organisation to co-ordinate and centralise all efforts and information on this important subject. A proposal for the appointment by the President of the United States of a National Marketing Commission is now pending in Congress.

With regard to the third need, that for vocational training in household work, the Department can point to a vast mass of information which it is constantly disseminating, and the provisions of the recently enacted Smith-Lever bill may be expected in the course of the next few years to supply still existing wants in this direction.

It would therefore seem that with the rational rural credit system, with the improved marketing methods, and with the highly developed vocational training which the near future seems to hold in store for the American farmer, his wife and business-partner may well look forward confidently to progressive development and prosperity.

FRANCE.

THE PROTECTION OF AGRICULTURE AGAINST WILD ANIMALS AND VERMIN AND EXCESSIVE GAME.

OFFICIAL SOURCE:

CIRCULAIRE DU MINISTRE DE L'AGRICULTURE AUX PRÉFETS, EN DATE DU 14 SEPTEMBRE 1915.
(*The Minister of Agriculture's Circular to the Prefects, of September 14th., 1915*).

As there was last year no open season for game and the Police Regulations in view of the state of siege allowed only a limited use of guns for the destruction of wild animals and vermin their number has considerably increased, in spite of the steps taken to destroy them.

On account of the continuance of the war, which prevents the game seasons being opened, the situation is becoming aggravated. The multiplication of wild animals and vermin and certain kinds of game has become, in many places, a danger for agriculture and the Government has considered the necessity of measures to remedy the evil.

§ 1. PROVISIONS AGAINST WILD ANIMALS AND VERMIN.

We must first of all review the principal legal provisions in connection with the destruction of noxious animals.

The right of destruction of these animals is in many respects to be distinguished from the right conferred by a game licence. The latter is an attribute to a holding; the right of destruction is a right of personal defence, or of defence of agricultural produce. There are consequently characteristic differences; first of all these rights may be exercised by different persons; then the animals that must be destroyed are not necessarily all of them such as may be defined as game; finally, many means of destruction differ from those authorized for the purposes of sport.

In consequence the exercise of the right of destruction is subject to police regulations differing in many respects from the provisions of the game laws and regulations.

The provisions of the law in regard to the exercise of the right of destruction may be classified in two groups: some measures are left to the personal initiative of those interested acting each on his own land without the intervention of the administrative authorities; others, on the contrary, necessitate such intervention on the ground of public utility and may, consequently, within certain limits, extend to all unenclosed land.

The measures individuals may take are of two kinds:

1. — Right to drive off wild animals. — By an extension of the right of legitimate defence, the landowner or tenant farmer has the right to drive off or destroy at any time, even with firearms and at night, wild animals that are demaging the farm (Sec. 9. of the Law of March 3rd., 1844). This right, which in ordinary times is not regulated in any way, is mentioned in all the prefects' decrees regulating the application of the game laws.

2. — Right of landowners, occupiers or tenants to destroy animals classed as mischievous or injurious in the Decrees issued by the Prefects, after consultation with the general councils in accordance with Section 9 of the Law of 1844 authorizing the prefects to regulate this right. Authorizations to individuals granted by prefects in virtue of these Decrees may nevertheless be used to sanction collective destruction by means of battues.

The measures the administration may take may be classed under three heads:

(a) Administrative *battues*, ordered by the prefects for the destruction, in the public interest, of wild boars, wolves, foxes and badgers.

These battues, which may be ordered for any time and on any property, are generally directed by the lieutenant of the wolf hunt, under the supervision of the forestry agents. In case he is prevented, the prefect may, in the Decree ordering the battue, arrange for his temporary substitution by the mayor or the gendarmerie of the district threatened by the presence of the dangerous animals, stating his special reasons for so doing (Circular of the Minister of the Interior of December 7th., 1875).

(b) Special permits granted by the prefects to destroy wild boars, wolves, foxes and badgers, under supervision of the forestry officers, to persons who have gangs or other means for effecting such destruction.

(c) Municipal battues organized by the mayors, who can, in virtue of Section 90, paragraph 9 of the Municipal law of April 5th., 1884.

1st. Take, together with the landowners or holders of game licences, all the necessary measures for the destruction of vermin classed as such in the permanent regulations issued by the prefect.

2nd. In time of snow arrange for the destruction of wolves and wild boars in their district, in default of the holders of game licences, after these have been duly invited, and to call on the inhabitants to proceed with the proper arms and dogs in chase of these animals.

The application of these various provisions gives rise in practice to the following observations of general character affecting naturally each of the classes of measures mentioned above.

Personal Measures. — Being forbidden, owing to the state of siege, to go out armed, landowners, occupiers or tenant farmers cannot use their

guns, either for driving off or destroying wild animals, as permitted by the law, or for destroying vermin, even when the Prefects' decrees regulating such destruction allow the use of fire arms. They have the right to use any other means than a gun against wild animals and the means authorized by the Prefects' decrees, except again fire arms, against wild animals and vermin.

It is for the prefects of the departments for which the regulations now in force do not make sufficiently efficacious provision, in view of the damage done by certain kinds of vermin, to amend their decrees, so as to permit of the adoption of more energetic measures, for example, against rabbits, rabbit nets and ferrets, traps and, if necessary, dogs. In no case are snares authorized.

If the importance of the damage justifies the use of guns either to drive off wild animals, or to destroy certain kinds of vermin, the prefects of the departments situated outside the fighting lines may authorize their use in virtue of powers conferred to this effect by the Minister of war on the generals in command in the different regions and now on the prefects. Further instructions will be given for the use of guns within the fighting lines.

In 1914, the Minister of War laid it down that as far as possible the use of guns should only be allowed on certain days, so as to facilitate supervision by the gendarmes and forestry officers. To render this supervision more effectual and prevent poaching, the Minister recommends that it be specified in the licences granted to individuals that the destructions cannot be carried on except collectively in battues with beaters or dogs, the holder of the permit being allowed the company of a number of men armed with guns varying according to the area of the land to be protected against the animals. The names of these men may appear on the permit or may be left to the choice of the holder of the permit. In the latter case, it may be stipulated that the names of the men taking part in each battue must be sent beforehand to the mayor or the gendarmes in each case.

These authorizations are given, as a rule, to landowners, occupiers or tenant farmers to enable them to exercise their legal right of destroying vermin. However possessors of hunting and shooting rights have always been considered as capable of benefiting by these authorizations and the decrees regulating such rights specially contemplate them. Besides, it is advisable to allow them to destroy animals injurious to agriculture, so as to alter their legal position in respect to liability for damage done as little as possible. The prefects are free to fix the conditions under which these authorisations shall be granted. Thus they can make the possession of a game licence compulsory, as provided in their decrees on the subject, even for close seasons. The Minister considers it will be in the interests of the State and communes to insist on the possession of a licence in the case of the holders of hunting and shooting rights in the department where such a step would not interfere with the destructions recognised as necessary. On the contrary, on landowners, occupiers or tenant farmers

exercising a legal right, no measure of a fiscal character, such as the obligation of possessing a licence, may be imposed.

No individual authorization can be granted except to landowners, occupiers or tenant farmers or their representatives and the holders of licences and their officers.

To facilitate inspection and supervision, the days for destruction (one, two or three a week), are fixed by the decree giving authorization. They must be the same for all the communes of each canton or each arrondissement or even each department, if there is no special reason for more frequent destructions in some places than in others. Exceptions may, however, be made, when recognised necessary, for the destruction of wild boars.

Administrative Measures. — The decrees in regard to administrative battues must mention the territory of the communes where they are to be organized, the number to be held, the kind of animals to be destroyed and the means of destruction authorized (battues with beaters, dogs, etc.). The indication of the names of the persons appointed to carry out the decree is not indispensable ; it is enough to indicate their office (lieutenant of the wolf hunt or his substitute : mayor, sergeant of police). It is left to these agents to fix the number of huntsmen or beaters and the days and hours ; it has in fact been found that battues ordered for days fixed by prefects have often been unsuccessful, as the animals to be destroyed, particularly the wild boars, which are migratory, have left the district before the day appointed. The Minister suggests that the Prefect's Decree shall confine itself to fixing the term (for example, a month) during which the battues ordered must be held.

The same remarks apply in the case of municipal battues, in regard to which special instructions were issued to the prefects in circular N^o 526 of the Minister of the Interior, dated December 4th., 1884.

In view of the state of siege, the mayor must first obtain the prefect's authority before sanctioning the use of firearms.

Of course, in the case of battues ordered by the administrative authorities, the possession of game licences cannot be required of the huntsmen, who must simply be chosen by the organizers of the battue among persons of respectability.

It is recommended that the special permits contemplated for destruction of wild boars, wolves, foxes and badgers be only granted in places where the holders of game licences have neglected to undertake their destruction, in spite of the complaints of the farmers and where the wooded areas are not large enough to justify the organisation of a battue by the administrative authorities.

Transport, hawking and sale. — The animals destroyed by administrative order, or in virtue either of the right of defence against wild animals, or of individual authorizations to landowners or holders of licences, are the property of those who have killed them, in accordance with the general principle that game and wild animals are *res nullius* and belong to the first finder.

However the hawking and sale of these animals is forbidden, unless a provision to the contrary effect be contained in the regulating decrees, as generally in the case of rabbits, wild boars, stags and hinds. In fact, except in a few departments of the South East where provision has not yet been made, the transport and sale of wild boars and rabbits belonging to rabbit warrens, when killed is always free over the whole territory. Provision has also been made in many decrees of the prefects, in departments where stags and hinds are classed as noxious animals, that these animals when killed in accordance with the regulations may be transported and sold, on presentation of a certificate of their origin, delivered by the mayor (or the forestry service when the animal has been destroyed in a State forest).

Transport facilities make it possible to send the animals killed to hospitals, ambulances or charitable institutions and, in some departments where such facilities do not exist, the prefects must grant permission for the necessary transport. Despatch to hospitals cannot always be insisted on, for, besides the fact that the destroyers have a right to the animals killed by them, it is advisable to allow them to make their profit out of them. If, in fact, it is considered indispensable to encourage the destruction of certain animals, it is wise not to hinder this destruction indirectly. It is besides advisable, in the case of the lessees of hunting and shooting rights, to disturb them as little as possible in the exercise of the rights they possess by their contract, so as not to alter their legal position in respect to the lessors.

§ 2. DAMAGE CAUSED BY GAME PROPERLY SO CALLED.

In addition to wild animals and vermin it has been reported that pheasants and hares have in certain places caused considerable damage and the Government has considered it necessary to take steps to hinder their multiplication.

1st. *Pheasants*. — In contrast with other kinds of game, in France the pheasant is essentially preserved game.

Both in view of this special character and the facilitations provided in Section 9 of the Law of May 2nd., 1844, to favour restocking with birds, the prefects have been able to authorize retaking pheasants and putting them in coops either for breeding purposes or, where they are plentiful, with the object of releasing them again in districts where it is desirable to introduce them. On the other hand, on account of the season remaining closed, far too many cock birds have survived for breeding under favourable conditions. It has therefore been decided to grant authorizations for catching the pheasants and putting them in coops between September 15th. and December 31st., and to encourage in every possible way the transport of live pheasants into regions where the breeding of these birds may be undertaken by societies or individuals. But as it is certain that

By reason of the superabundance of pheasants the quantity of birds to be caught, especially cock pheasants, will exceed the needs of the breeders, the transport of pheasants to preserved meat factories has been authorized under the conditions already approved last year which we give below.

Hawking and sale of pheasants is forbidden, so as not to encourage poaching; it is only permitted to transport them to the railway station nearest the breeding establishment and thence in trucks or sealed baskets, in consignments of not less than 100 kilograms each, to tinned meat factories.

On the other hand pheasants may only be caught at the distance of at least 150 metres from the nearest game preserves and permits to capture them can only be given to persons of perfect respectability after it has been found on enquiry that they devote themselves to the raising of pheasants.

In case the persons applying for permission desire to offer the pheasants to hospitals or charitable institutions their applications may be granted, but each consignment must be accompanied by a special permit declaring:

- (1) the origin of the pheasants (landed estate on which and locality in which they were caught);
- (2) the number of pheasants of which transport is authorized;
- (3) the institution to which they are forwarded.

These permits must be returned to the prefect immediately the pheasants have been received, with the visa of the manager of the institution.

Authorizations for the transfer of live pheasants for breeding purposes are given, as in the past, by the prefect of the department concerned when they are transported from one place to another within the limits of the department or directly by the Minister of Agriculture (General Division of Waters and Forests) when they are to be transported beyond the department in which they have been caught.

2nd. *Hares*. — The prohibition of hunting and shooting during the season 1914-1915, has permitted hares to multiply and in certain communes serious damage is reported as having been caused by these animals. In places where the seriousness of the damage has been verified on enquiry, it has been decided to authorize the capture of hares by means of snares, in order to send them to districts where preserves may be restocked with hares. These authorizations are granted under the same conditions as in the case of pheasants.

GREAT BRITAIN AND IRELAND.

PERIODIC MIGRATIONS OF IRISH AGRICULTURAL LABOURERS.

By JOHN HOOPER, B. A.,

of the Department of Agriculture and Technical Instruction for Ireland.

Ireland, one of the most fertile lands in Europe, a purely agricultural country with but few important industries, having as its political partner the densely populated industrial island of Great Britain with its large markets for agricultural produce, might naturally be expected, for economic and political reasons, to possess a highly intensive system of agriculture calling upon its poorer and later districts and on Great Britain for migrants to gather an abundant harvest. Ireland, however, all but lost the art of tillage, the migrations of agricultural labourers from one district in Ireland to another, at one time considerable, have now dwindled to insignificance and instead of drawing on the British labour market at harvest time, Ireland loses at this her busiest season the services of many thousand small farmers, their sons and daughters, who are obliged to eke out their livelihood with savings made at harvest work in Great Britain, which keeps them more than half the year absent from their homes. One might expect to find these homes on the neighbouring eastern coast but they are only to be found in the extreme western and north western counties, three hundred miles distant from Great Britain. These migrations present one of Ireland's many anomalies, which can be explained only by reference to her history, and perhaps it may be of interest before describing the present migrations to trace even in some detail the causes which have occasioned them. They have been necessitated by poverty, the result partly of natural, but largely of historical causes.

§ I. PRESENT CAUSES OF THE MIGRATIONS.

Most of the migrants come from Co. Mayo on the western and Co. Donegal on the north western coast. Barren mountain, lake and bog, cover more than half of the area of these two counties; the remainder is cultivable land of poor quality and even this is not made the most of

The best of it is divided into large grazing ranches employing but little labour; the rest is highly congested. More than half of the occupiers still hold less than one fifth of the cultivable land and this the worst land is often found subdivided into a patchwork of small holdings consisting of numerous detached little plots sometimes a dozen to the acre. The agricultural methods are still primitive and as the migrants after sowing their little holdings have to hurry to Great Britain, their crops can only be inefficiently cared for by the weaker members of the family who remain at home. The mineral resources of the country are insignificant and fishing is rendered dangerous and difficult by the Atlantic gales and the lack of landing facilities. The subsidiary industries — fish curing, kelp burning, weaving, knitting, crochet and lace making, etc. — have done little as yet to alleviate the poverty. Nature places many obstacles to the marketing of produce. Transit facilities are poor and railway rates high and accordingly there is little inducement to trade with distant markets. Local markets are wretched; the districts produce nothing to exchange against agricultural produce and in these two counties with a total population of 360,000 persons the largest town (Ballina) has only 4,700 inhabitants.

§ 2. HISTORICAL CAUSES OF THE MIGRATIONS.

Annual migrations of Irish harvestmen to Great Britain have taken place for at least two centuries and were important enough to attract the attention of English and Irish writers early in the eighteenth century. The historical forces compelling and attracting the migrations had probably reached their maximum about 1847 and it will be convenient to consider them up to and after this year.

(a) *Migrations increased up to 1847.*

During the Conquest of Ireland, which was not complete until the middle of the 17th century, large numbers of the Irish retreated westward before the conquerors, increasing the population of the west at the expense of the east. Two measures in particular affected the Provinces of Ulster and Connaught from which the migrants have always come. The Plantation of Ulster under James I. drove many Irish to the mountains of Donegal and the Cromwellian Settlement banished one-eighth of the Irish families to the Province of Connaught. The resulting overcrowding was afterwards intensified by a high marriage rate amongst a naturally fertile and long-lived people. Early marriages were encouraged by a system of land tenure which placed no obstacle to the subdivision of holdings and by a franchise which made it the political interest of the landlords to have a numerous tenantry. Accordingly in the Report of the Irish Census

Commissioners we find that in 1841 there were 476 persons in Mayo and 473 in Donegal respectively to the square mile of cultivable land as compared with 335 for the whole of Ireland. In 1911 the figures had declined to 193 in Mayo, 203 in Donegal, and 191 in Ireland as a whole.

The overcrowded population was unable to take full advantage of even the poor resources of their country. The banishment of the Irish from the towns and the restrictions placed on Irish industries and commerce in the 17th. and 18th. centuries stifled the spirit of industrial and commercial enterprise. The only resource left was agriculture, but the lands did not belong to the occupiers, who rented them under a wretched tenure. Owing to the land hunger rents were extortionately high and subdivision was carried to extremes; holdings became uneconomic and accordingly, with no local industries or trade to fall back on, the people were forced to resort either to emigration or to periodic migrations.

The large areas cropped up to the middle of the 19th. century in Great Britain and in the south eastern quarter of Ireland required considerable extra labour at harvest time and attracted the labourers from the late harvest lands of the mountainous north western quarter of Ireland. This extra labour in Great Britain was at one time supplied largely by agricultural labourers from the Highlands of Scotland and from Wales and by local town labourers, but the Irish migrants supplanted the British migrants and with the improved travelling facilities of the early half of the 19th. century crossed to Great Britain in increasing numbers up to the middle of the century when perhaps about twice as many went to Great Britain as went to the south eastern quarter of Ireland.

(b) *Migrations have decreased since 1847.*

The potato was practically the only food of the Irish migratory class and the potato famine in Ireland in 1847 swept so many families away by starvation that this calamity is comparable in its effects with the Black Death in England. Other causes quickly followed further to reduce the population of Ireland, which decreased from its maximum, 8,200,000, in 1841 to 4,400,000 in 1911. The fall in the price of corn after the Repeal of the Corn Laws and the rise in the price of meat induced landowners to consolidate their farms and turn them into grazing ranches. Evictions were wholesale and the dispossessed tenants who had the means fled in hundreds of thousands annually to America. An idea of the effect of the famine and emigration may be obtained from the Census figures for Co. Mayo which show that the population which had increased by 33 % in the twenty years preceding 1841 decreased by 34 % in the following twenty years. The numbers of the migratory class, however, were not reduced in the same proportion as the status of the population was lowered. Many of the evicted tenants fled to the mud cabins of the migrants who were swept away by the famine and took their places at

the British harvests. The migrations to the south east of Ireland fell away rapidly with the decrease in tillage, but there was still plenty of harvest work to be had in Great Britain (though the cropped area there also decreased) and the numbers crossing did not greatly decline until the beginning of this century.

The numbers of migrants to Great Britain in 1841 were estimated by Census Commissioners at 40,000; probably another 20,000 went to Leinster and Munster making 60,000 in all. In 1900 the number that migrated was estimated at 32,000, practically all of whom went to Great Britain. This decrease was due principally to the decrease in the numbers of the migratory class in Ireland and to the decrease in the cropped areas of Ireland and Great Britain. The number decreased from about 32,000 in 1900 to some 13,000 in 1914. The decline has been caused partly by the more general use of improved farm machinery, especially the self-binder, in Great Britain, and by the continued emigration to America from Mayo and Donegal, but it is more largely due to improved conditions in Ireland itself. These improved conditions have been brought about to some extent by increased prices for agricultural produce but mainly by Government action. It is only now that the ameliorative legislative measures, especially the Land Acts, initiated by Gladstone and improved upon and supplemented by succeeding Tory and Liberal Ministers, are having their full effects. In particular, the improved conditions have more recently been brought about by the Land Purchase Act of 1903 and by the combined work of the Congested Districts Board founded in 1890 and the Department of Agriculture and Technical Instruction established in 1900. The land is gradually being redistributed in more or less economic holdings amongst the people who have purchased it on the instalment principle with money lent by the Government. They are being taught to get the most out of the land by up to date methods of agriculture, and the best return from the sea by the best methods of fishing in the most suitable boats; they are taught to build the boats and make and mend the nets themselves; the women are instructed in the curing of fish, in weaving, knitting, crochet and lace making, in order to supplement the earnings of the men, and are also taught the most suitable system of housekeeping so as to make the most of their little incomes. Money is lent by the Government for productive expenditure but this is scrupulously paid back by these poor people; State pensions are given to the aged poor and these are of exceptional importance to the migratory class, who, owing to emigration, include an abnormally high percentage of old persons; labourers' cottages have been built at public expense and rented with acre or half acre plots at a nominal rent; railways have been built with public guarantees; seed potatoes have occasionally to be doled out at times of dearth and relief works undertaken. While all this is being done the greatest care is taken that no Government action shall undermine the spirit of independence, which, on the contrary, is carefully fostered and stimulated. For the uplifting of the people the Government mainly depends

on educational methods and teaches the people to rely on themselves⁽¹⁾. The types of State aid referred to apply with particular intensity to the districts and classes from which the migrants come. These districts and classes also share in the general improvement brought about by other Government measures and by voluntary agencies, such as the agricultural co-operative movement and the Gaelic League.

§ 3. RECORDS AND DESCRIPTIONS OF MIGRATIONS.

The first authoritative numerical estimate of the migrations to Great Britain was that of the Census Commissioners of 1841. The famine of 1847 was the occasion for starting an admirable system of collecting annual statistics of areas and produce of crops and numbers of live-stock in Ireland by police enumerators, who, after the distress of 1879-80 amongst small farmers and agricultural labourers — the class from which the migrants are drawn — were instructed to include in their statistical returns for 1880 particulars of the migrations of agricultural labourers and this has been done each year since. Each enumerator in June makes a return, for the area allotted to him, of the names, addresses and occupations of all persons who have migrated or intend to migrate that year. Although this Census is far from complete, supplementary railway and portal returns showing that not more than about 60 % of the migrants are enumerated, still the police returns disclose much interesting information. Seventy four per cent of the migrants enumerated in 1914 came from Connaught, 24 % from Ulster, the remaining 2 % coming from Leinster and Munster; Co. Mayo in Connaught alone furnished 58 %, Co. Donegal in Ulster 22 %. Only 3 % of the migrants were females, nearly all of whom went from Achill Island to Scotland to gather the early and late potatoes. Of the migrants enumerated 18 % were small farmers, 69 % the sons and daughters of small farmers, the remaining 13 % being landless agricultural labourers. Seventy-seven per cent of the farmers who migrated in 1914 had holdings less than 15 acres, 87 % had holdings less than 20 acres; the large holdings belonging to the migrants, some up to 40 acres and even more, are mostly barren or rough grazed mountain land. Ninety-six per cent of the migrants went to Great Britain, only 4 % finding employment in Ireland on farms at a distance from their homes. Of the

(1) For fuller accounts of the economic conditions of Irish agriculture and the action taken by the Government to improve them, see the following articles in the *Bulletin of Economic and Social Intelligence*:

"Land Purchase in Ireland", October 1911.

"The Fair Rent Provisions of the Irish Land Acts", by A. P. Magill, January 1914.

"The Sources of Rural Credit in Ireland", February 1915.

"The Congested Districts of Ireland and the Work of the Congested Districts Board", by F. S. Sheridan, February 1915.

migrants who went to Great Britain 72 % went to England, 28 % to Scotland. Of those who went to England 99 % were from Connaught (78 % coming from Mayo). Of those going to Scotland 80 % were from Donegal and 16 % from Mayo.

Although the number of migrants enumerated in 1914 was only about 60 % of the number who actually migrated still even the number enumerated show that the migrations cause an appreciable drain on the labour supply of many districts. In 1914 in the Poor Law Union of Swinford, Co. Mayo, a district of 237 square miles with a total population of 43,000, no less than 24 % of the total male population 20 to 60 years of age were enumerated as migrants; in Glenties, Co. Donegal, 14 % were enumerated; in Dunfanaghy, Co. Donegal, 12 %; in Westport, Co. Mayo, 10 %; in Claremorris, Co. Mayo, 9 %, etc.

§ 4. THE MIGRANTS IN GREAT BRITAIN.

In Great Britain the migrants are classed into three groups: (1) The "Achill workers," (2) The "Donegal men," (3) The "Connaught men," The first two groups work in Scotland, the "Connaught men" in England. The "Achill workers" are the most highly organised and most interesting but the least numerous of the three groups. This is the only group that contains many women and girls and the males, unlike the "Donegal men" and "Connaught men," are usually old men or boys. Girls and boys of twelve years and even as young as nine years are found working in this group. The "Achill workers" are employed only at potato lifting; the "Donegal men" and the "Connaught men" do all classes of harvest work including potato lifting. The "Connaught men" make up the largest of the three groups and appear to earn per head per week more than the "Donegal men", who earn considerably more than the "Achill workers." As the latter in addition do not remain so long away from their homes as the "Donegal men" or the "Donegal men" quite as long as the "Connaught men" the amount of savings per head of the "Connaught men" for the season is perhaps double that for the Achill group.

The following paragraphs indicate the conditions under which the migrants work in Great Britain; the average wages and savings mentioned refer to the year 1914, but it is understood that the corresponding figures for 1915 are considerably higher.

(a) *The "Achill Workers."*

The "Achill workers" come principally from the Island of Achill and the neighbouring mainland of Connaught and go in squads to Scotland, each squad being under the charge of an Irish "gaffer" who has made arrangements early in the year for work for his squad for the whole season

from June to November with potato merchants in Scotland. These merchants buy potatoes in the field from farmers in different localities; the potatoes are lifted and gathered by the "Achill workers," who after doing two, or three weeks' work on one farm pass on, as by previous arrangement, to the next farm and accordingly do not suffer from unemployment during their stay in Scotland. The members of each squad remain together for the whole season and it is their excellent organisation which makes it possible for the pure Irish girls and women to work in this group as migrants alongside their fathers, brothers and neighbours, and it is the lack of organisation in the other two groups of migrants that accounts for the very few females they include. The "Achill workers" go about the middle of June to Glasgow by a special steamer which calls for them once a year at Achill or by the regular steamship service from Westport. The distance by sea is about 300 miles and only the roughest accommodation is provided for the migrants, who are charged only 7s. for the journey. On arriving at Glasgow they are set to work lifting the early potatoes in Ayrshire. These are dug by a man with a fork and picked by a woman, the two being called a "graip." A squad is usually made up of a dozen "graips," two "timmers," a "barrelman" and a "riddler." The work is very hard on the girls and women, who have to keep pace with the men dragging themselves and their heavy baskets of potatoes often through sodden clay. When a basket is filled the woman passes it to one of the "timmers," who takes it to the collecting point where the "barrelman" and "riddler" collect and sort the potatoes in barrels for the market. Six graips will lift an acre of potatoes in the day and a graip usually earn about 5s. a day between them. A "timmer" usually gets 3s. a day, the "barrelman" and the "riddler" about 25s. a week, the "gaffer" 26s. to 30s. The graips and timmers are paid only for the time actually worked and one day a week is said to be the average time lost on account of wet weather. The others are paid the same, wet or fine. The working day is ten hours, beginning at 6 or 6.30 with a breathing spell of ten minutes at about 9 o'clock, a half hour for dinner at mid-day and another ten minutes' rest in the afternoon. The workers, however, are always only too glad to work earlier or later if required and sometimes commence as early as 3 a. m. The early potato season is over in Ayrshire in mid-August when the squads move into many of the Scotch counties, but principally to the eastern counties, to gather the main potato crop, which is raised by potato digging machines; the women and girls pick the potatoes, which are pitted by the men. This work is finished early in November when the "Achill workers" return home.

On arrival in Glasgow in June each of the squad is supplied by the merchant with pair of double blankets as bed clothes, which are carried from farm to farm and returned when the work is finished. The merchants also contract with the farmers for sleeping accommodation for the squads, but as the farmers have no financial interest in their welfare and as the one squad remains on a farm for only a few weeks the accommodation provided is wretched, but is improving. The migrants sleep in "bothies" which

are sometimes cottages but more often only farm buildings—barns, sprouting sheds, etc. They frequently have to eat and sleep in the same compartment and as the one fire which is supplied by the farmer is often out of doors the migrants in wet weather are sometimes unable to get their clothes dried for work on the following day. They usually sleep on straw, which they find more wholesome than the mattresses which are sometimes provided by the farmers. The merchant allows them all the potatoes they can eat, but as a rule they can only find time to boil the potatoes for the evening meal after their day's work is done. The workers stint themselves to save as much as possible and live on potatoes, bread and butter with occasionally eggs, fish, bacon, and tinned meats, but very seldom fresh meat. It costs a single individual 7s. or 8s. a week to keep himself, but as many of the workers come in families of three or four the average cost is less. For the season from mid-June to the end of October eight pounds is considered a fair saving for one person.

(b) *The "Donegal Men."*

The "Donegal men" come from Ulster, principally from Co. Donegal, and work in Scotland as general harvesters. Unlike the Achill labourers they work individually, each making his own arrangements by writing early in the year to the farmer or farmers who employed him in the previous season. A labourer migrating for the first time generally goes in company with an older hand who looks after him. They usually migrate early in June and start work at turnip singling, and many remain until a few weeks before Christmas. They generally go by train to Derry and thence by steamer to Glasgow and are employed chiefly in the Lothians (Linlithgow, Edinburgh and Haddingtonshire) and Berwickshire. At certain times during the season the farmers are pressed for labourers—at first and second hoeing, hay making, corn harvesting, potato digging, mangel and turnip gathering—and though many of the Donegal men remain on the same farm throughout the whole season, others pass from one district to another, sometimes from an early district to the same operation in a late district, sometimes from an early operation in one district to a different but later piece of work in another, endeavouring to obtain the hardest and best paid work which is to be obtained at the periods of emergency. Between spells of pressure they can earn but small wages and sometimes put in these intervals as navvies.

The usual working day of the "Donegal men" is 10 hours—from 6 to 6 with a two hours' interval—but when working by the piece they often put in 14 hours a day. At turnip singling and hoeing, potato pitting and mangel and turnip pulling they are generally paid by the piece, and 5s. a day is considered a fair earning. At harvest time they are paid by the week, getting about 21s. to 25s. with beer and bread and cheese once a day. Some farmers give tea, coffee, milk or money—about 3s. a week—instead of beer. They generally get free lodging on the farms in "both-

ies", much the same class of accommodation as is provided for the Achill workers. They are usually allowed potatoes and have to do their own cooking. It costs one of them about 10s. a week to keep himself in tea, and bread and butter with fish, bacon, eggs and fresh meat. A thrifty man saves up to £15 during his six months stay. They bring home considerably more than the "Achill workers," who are chiefly women and girls, old men and boys, and the "Donegal men" remain longer in Scotland.

(c) *The "Connaught Men."*

The "Connaught men" come from the Province of Connaught, chiefly from Co. Mayo, and work as general harvesters in England. Like the "Donegal men", they make their arrangements early in the year individually with the farmers with whom they were employed during the previous season. They begin to migrate as early as February and many remain until a week or two before Christmas. They go by train to Dublin—a distance of nearly 200 miles—and thence by steamer to Holyhead—a sea journey of 70 miles. They are principally employed in the northern half of England—in Northumberland (Donegal men work in the northern part of the County, Mayo men in the south), Durham, Yorkshire, Lincolnshire, North Cambridgeshire, North Huntingdonshire, Warwickshire, Staffordshire, Derbyshire, Lancashire and Cheshire.

Some of the "Connaught men" remain on the same farm during their whole time in England but most of them, owing to the nature of the work, are employed in at least two or three different districts in which the same men, year after year and one generation after another, work on the same farms. Their best paying itinerary appears to be to work at haymaking in East Lancashire and West Yorkshire, then at the corn harvest in South Lancashire and North Cambridgeshire and then at potato lifting in Warwickshire and Staffordshire. For the "hay month" in East Lancashire and West Yorkshire they usually get £5 10s. with their food and lodgings. In the Fens of North Lincolnshire and North Cambridgeshire, where it is often impossible to use the reaping and binding machines they are employed in harvesting the corn. They work in groups of three or four and for a long day's work they earn 7s. to 10s. each. In North Warwickshire and South Staffordshire where the best wages are to be had, they make also from 7s. to 10s. a day lifting potatoes and make £10 to £12 in the five or six weeks they are employed in these districts. Between these three seasons they earn but low wages and have to chance a certain amount of unemployment.

Many, "Connaught men" remain from June and some even from February up to a week or two before Christmas on the same farms in Southern Lancashire, Durham, Lincolnshire, Warwickshire, and Cheshire, but though they suffer no unemployment they are paid comparatively low wages. They get 16s. or 17s. a week with 10s. to 20s. extra for the corn harvest. On piece work at potato lifting they make up to 6s. a day.

As a rule the "Connaught men" are given barns, lofts or sheds, in which to sleep, with straw and blankets or sacking for bedding. On many estates in Southern Lancashire and Cheshire special cottages of two rooms have been built for them. The men are generally given fires for cooking and where these are not supplied the little cooking they require is done for them by the house servants. Sometimes they pay 1s. or 2s. each to a woman, usually the foreman's wife, to cook for them. Their food costs about 10s. or 11s. a week but at times of particularly hard work they spend more. It is difficult to get an idea of their savings. Perhaps on an average they would save £15 or £16 during the season. Some who are lucky enough to get continuous work at periods of pressure, say at haymaking, then without a break at corn harvesting, and again without an interval at potato lifting, can save as much as £30 in the season, but others may have some weeks of enforced unemployment between the haymaking and the corn harvesting and between the latter and the potato lifting. The men who stay on in one place lose no time except in wet weather but cannot save more than about 10s. a week, whereas a man at piece work, at corn harvest, or potato lifting can save 20s. a week or more while the work lasts.

Their English and Scotch employers bear testimony to the endurance, industry, thrift, sobriety and general good conduct of the Irish labourers and state that as a class they are far superior in every way to the local labourers who can be engaged for the same work. The decline in the number of Irish migratory labourers presents a serious problem to the British farmer; to the Irishman, however, the decline is only one of many indications that his country, plunged for centuries in poverty and unhappiness, is at last emerging into prosperity and contentment.

NOTICES OF SOME RECENT PUBLICATIONS
RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

FRANCE.

BAUDOIN (R) : LE RAVITAILLEMENT EN VIANDE DANS L'ARMÉE FRANÇAISE (*Supply of Meat for the French Army*). *La Vie Agricole et Rurale*, april 10th., 1915.

The fresh meat which the Commissariat distributes to the army in the field is obtained, if possible, from the local supply furnished by the territories occupied by the troops. But when it is not possible to live on the country, as in the present case, it is necessary to obtain consignments from the country in the rear. Among the organizations in the rear the army has at its disposal are the stores (*Stations-Magasins*), which Mons. R. Baudoin has studied in the *Vie Agricole et Rurale*, of April 10th., 1915.

The store is a centre of supply established on a railway behind the armies in the field. It is a large establishment, at the same time a factory and a storehouse, the essential rôle of which is to keep available, at a certain distance from the scene of hostilities, provisions of every sort required by the troops — bread, biscuits, fresh or tinned meat, fresh or preserved vegetables, rice, salt, sugar, roasted coffee, wine, etc.

With regard to fresh meat, which alone is studied by M. Baudoin, every store is supplied with livestock as follows :

1. In proximity with the store there is formed a livestock dépôt to provide a supply of livestock for two days for the troops served by the store (the requirements are calculated on the basis of a 500 gram ration, and assuming a uniform yield of 50 %);

2. Near one of the railway stations further back a supply equal in amount with that of the dépôt (two days' supply of livestock) is maintained at a cattle collecting station (*parc de groupement de bétail*).

In order to prevent crowding, the supply in the dépôt and at the collecting station must never be more than enough for two days for the troops served by the store. Also, with the same object, the dépôt and the collecting station are divided each into two parts, each containing half the stock of animals, the first half housed or penned in the neighbourhood of the station, so as to be placed on the train at a moment's notice, the second half at some distance from the station, at 3 or 4 kilometers at most. In each division the animals are housed in cow-sheds, stables, cart-sheds, etc., or, in the absence of covered enclosures, they are kept in the fields.

In the department or region in which the store is situated, a certain number of cantons are selected beforehand to furnish the livestock required for the supply of the dépôts and collecting stations. These cantons form part of areas selected in advance, which, as a rule, may not extend to a greater distance than 50 or 60 kms. from the dépôt or the collecting station. These areas are exploited by the territorial supply service, which is entrusted with the task of supplying the cattle required for the collecting stations and the stores. Preparations were already made for this in time of peace so as to ensure the supply of livestock for the stores from the first day of mobilisation.

The livestock required for the store is, in the first place, supplied from an area reserved for the purpose in the immediate neighbourhood. When the resources of that area are exhausted, or, before this, when circumstances make it necessary, the livestock required are obtained from areas further in the rear, along the line of communication which serves the store; in each of these areas provision is made for a cattle collecting station.

Each area is divided into collecting districts (*circonscriptions de groupement*), each of which has a receiving station, situated as near as possible to the dépôt or collecting station it has to supply, so as to prevent unnecessary journeys for the cattle. The livestock is collected in these receiving stations by one or more receiving commissions: the livestock supplied by each commune is taken in droves to the receiving station and thence by road or rail to the dépôt or the collecting station. The area which assures the replenishing of each dépôt or collecting station also assures the feeding of the livestock; the receiving commissions have also to collect the fodder and send it to its destination.

The livestock delivered by the receiving commissions is received at the second division of the dépôt or the collecting station by the administrative officer in charge; after examination by the veterinary surgeon, they are penned and weighed and then placed in stables, on farms or in enclosures.

The store must be always in a position to satisfy without delay the applications for livestock it receives from the Commissariat. It is the Commissariat who are really concerned with the supply of livestock to the army.

The livestock applied for is not slaughtered at the store: it is forwarded alive by rail to the concentration station (*gare régulatrice*), where it is consigned to the food supply division of the Commissariat office of the station.

The livestock despatched by the store is taken from the first division of its dépôt, situated, as we have seen, quite in the proximity of the forwarding station. This precaution prevents all loss of time; so the loading rapidly follows the order to deliver. Each truck is loaded with eight or ten animals, according to size; twenty minutes suffice for loading a truck. Each train must carry enough cattle food to assure the feeding of the cattle when unloaded. But the livestock do not require food or drink when the journey does not take more than thirty-six hours and is not made in hot weather; if the transport requires a longer time, the

livestock are unloaded at a station arranged for the purpose of giving them food and drink; in hot weather they are given water every twenty-four hours.

It is desirable, as the war is being prolonged, to economise the supply of cattle in the country and to have recourse to pig-meat, as far as may be. The pigs may be slaughtered in the dépôt, so that they may be forwarded to the troops as soon as they have been slightly salted. If the despatch of fresh meat is impossible, the store sends the troops preserved meat, a supply of which formed in time of peace in each store is kept up by means of consignments from the interior of the country.

The trucks of cattle, on arriving at the concentration station, are sent from there to the Commissariat bases, where the animals are unloaded and taken under the care of the food supply division of the Commissariat, which makes up droves to travel by land to the cattle pens of the various army corps. In fact each army corps has a cattle pen which can supply the whole corps with meat for two days. When no distributing routes have been established, a pen is formed at the regulating station. This pen allows of the despatch, on urgent demand, of a day's supply of livestock for one or two army corps; it has also to consign the cattle required by the men of the Commissariat.

To sum up, the cattle pen of an army corps is renewed either from the livestock of the district, or by means of consignments from a store; the store is replenished, in proportion as the livestock are forwarded to the army, out of the supplies of the reserved area immediately in its neighbourhood; and, when these are exhausted, the supply of the store is assured by consignments from a collecting station. Such is, in outline, the method on which the supply of fresh meat to the army is organized; the store is the essential organization for the purpose, as it is for food supplies of every kind; here the greater part of the bread consumed by the troops is baked, the coffee roasted, rice, cheese and large quantities of vegetables (potatoes, beans, split peas, cabbages) are collected and forwarded, as well as tins of sardines and tunny, sugar, tinned soups, chocolate, tea, coffee tabloids, wine and even soap, candles, matches, tobacco and cigarettes.

GREAT BRITAIN AND IRELAND.

BATHURST (CHARLES): LAND SETTLEMENT OF EX-SERVICE MEN. *The Nineteenth Century* No. 465. November, 1915. pp. 1097-1113.

In his article in *The Nineteenth Century* Capt. Bathurst asserts (it cannot be said that he estimates, since he adduces no reason for choosing one figure rather than another) that at least 8 per cent. of the *personnel* of the New Armies, not previously so engaged, will after the war desire rural occupation

as a means of livelihood, and at least 3 per cent. will prefer such occupation at home rather than overseas if facilities are forthcoming immediately upon termination of their war service and if there is a reasonable prospect of commercial success. In other words, there will be, at the end of the war, some 90,000 potential home settlers, some of whom will be partially disabled but quite capable of making a living out of light rural occupations and Capt. Bathurst proposes that these men with their families should be established on small holdings grouped in colonies of convenient size in suitable situations. The area provided for each ex-Service settler would depend necessarily upon the nature of the soil, climate, and produce in view. Fifty separate holdings might form a convenient number to group into a colony and the total area might vary from 1200 to 200 acres.

The success of such a scheme would depend to a large extent upon the ability of the settlers' women folk to be of real assistance in butter-making, poultry-rearing, bee-keeping, fruit-growing and the other lighter agricultural occupations, and for this reason, and further, because male labour will be very scarce throughout the whole of next year, the training of young women in these occupations should be begun at once. County Councils and the Boards of Agriculture and Education should immediately set themselves to the provision of facilities for teaching and training the wives and daughters, sweethearts and sisters of service men.

The next important desideratum is the teaching of co-operative methods and the provision of the necessary machinery for the collective purchase of implements and general farm supplies and the collective sale of produce. In order to take full advantage of co-operative methods, which (in the opinion of the writer) are essential to the success of any small-holdings scheme, suitable large estates, should be purchased as they come into the market and colonies fully equipped *ab initio* established upon them. A start could be made immediately with such of the partially disabled men as are likely to make successful small-holders.

In each colony a central co-operative dairy should be established, and all costly machinery and equipment for occasional use such as a threshing machine, sheep-dipping tank, potato and fruit-tree sprayers, motor-tractor and even heavy horses should be collectively owned and hired out at easy rates to the members. The colony should also own or hire collectively pedigree bulls, stallions, rams and boars. A certain area in each colony should be reserved for use as a demonstration farm and placed under the control of a competent manager. Men who have had no previous training in agriculture could work for a certain time as labourers upon the demonstration farm in order to gain experience.

The chief difficulty would lie in the adequate financing of the scheme. The land required would, it is proposed, be leased from the owners by Government by some local authority such as the County Council or by a Land Settlement Authority appointed *ad hoc*, and sublet to each individual occupier or, preferably to the colony organised as a body corporate under the Industrial and Provident Societies Acts. The colonists might in many cases be able to provide the necessary working capital themselves, and for the remain-

der Government loans might be made available to approved applicants — especially to warrant and non-commissioned officers in the Army and petty officers in the Navy — according to their capacity, education, previous experience and the qualifications of their women folk.

Capt. Bathurst is no believer in small holdings schemes as they have hitherto been carried out in England.

"Considering the magnitude of the machinery set up," he writes, "and the very large public expenditure involved, the artificial creation of statutory small holdings has been a failure, like most land schemes initiated by politicians whose social aspirations are commendable but whose agricultural knowledge and experience are small."

"During the seven completed years since the Small Holdings Act, 1907, came into operation, and with the aid of every species of political and departmental stimulant, the total number of individual applicants provided with holdings by the County Councils was only 18,486 and of these 33 per cent. have already vacated possession of them."

In the face of such a record, however, he is confident that his scheme for ex-Service men could be made successful, principally because, — "By contrast with the would — be small-holder of the past these ex-Service men will be young, keen, teachable, generally business-like, resourceful, courageous, and, knowing the advantages of joint action and comradeship, inclined to co-operation."

SMITH (J. DRUMMOND): THE HOUSING OF THE SCOTTISH FARM SERVANT. *The Economic Journal*, Vol. XXV, September, 1915. pp. 466-474.

In an article which barely fills nine pages of *The Economic Journal* the writer deals with what is really the heart of the farm labour problem in Scotland — the question of housing farm servants, — and the picture which he draws of present day conditions is sufficiently dreary and would, indeed, be depressing were it not for the fact that the reader is shown that here and there in recent years improvements have taken place and there are signs that the movement for reform is growing.

Unmarried farm hands in Scotland either live in a room apart from the farmhouse on what is called the "bothy" system, or eat in the kitchen of the farmhouse and sleep in a room of sorts either in the house itself or, until quite recently, more often over the stable. In the "bothy" a plain table, a few forms and "cooking utensils of a rather meagre description" are provided by the farmer, but the men usually have to do their own cooking. Even if the men are able to cook they have little time either in the morning or at midday to prepare food, and in the evening they are generally too tired to do so. "The most striking thing about the bothy," the writer says, "is its shivering bareness and want of comfort."

Even under the other system, where the men eat in the farm-kitchen, the sleeping rooms are, as a rule, bare, dreary and fireless. These housing

systems are largely responsible for the habits which the younger men acquire. The single men are said to be constantly moving from farm to farm, to be rough in speech and behaviour, to be loose in morals. Certainly the comfortless conditions under which they live make for roughness and laxity.

Conditions for the married farm hand are often equally bad. Cottages are insufficient in number, are almost invariably too small for comfort or even for health, and are often damp and in bad repair. They have seldom any conveniences in the way of wash-houses, cupboards, sculleries or sinks; the water supply is sometimes two or three hundred yards from the house, and is not always above suspicion. The normal type of cottage consists really of only two rooms, a kitchen and a bedroom or (in the vernacular) *a but and a ben*. The kitchen (the *but*) is usually a fair-sized room as it has to hold a bed or beds and serve as the chief living room. The bedroom, or *ben*, is small, and a sort of closet which exists between the two is hardly to be dignified with the name of "room". The accommodation is quite inadequate, the more so as such cottages are occupied by a healthy vigorous race whose families are usually large.

The difficulty in the way of providing better cottages lies in this, that the cottages are tied to the farm and are reckoned as part of the men's wages. They are leased by the farmer with the farm but they are admittedly the last part of the steading to receive attention either from the farmer or from the landlord. The farm servant occupying a tied cottage is in a peculiarly bad position. If he complains he runs the risk of losing not only his job but his home as well. When he bargains with a prospective employer he may hold out for an increase in his money wages, but he must accept whatever kind of cottage exists upon the farm where he finds employment.

The problem of bad housing in Scotland is not of the same difficulty as in England where bad housing is closely connected with low wages. The Scottish farmer has been shrewd enough to see through the fallacy of the cheapness of badly-paid farm labour, but has not yet realised that the house in which a man lives is related to his efficiency as a worker in just the same way as the wages he receives.

The writer of the article admits that many landlords simply cannot afford to erect new cottages, and suggests that in such cases it would be good policy to grant Government loans at a moderate interest, and with proper safeguards, for the purpose of building. The local authority might also, under certain circumstances, itself undertake the erection of cottages. But in the first place the vicious system of the tied cottage should be ended once and for all. With the tied cottage abolished the labourers would probably wish to live together in groups, and this from many points of view would be a distinct advantage, as it would make it possible to provide those conveniences which are so vitally necessary for making the cottage a real home. If grouping took place some reduction of hours would be necessary, but this would be a gain rather than a loss as the hours of farm servants are at present notoriously long. At any rate, in one way or in another, housing conditions must be improved. The prosperity of the labourer is as essential to the true interests of agriculture, as the prosperity of the farmer.

TUNIS.

GÉNIAUX (CHARLES): LA TUNISIE PENDANT LA GUERRE (*Tunis during the War*). *Revue de Paris*, October 1st., 1915.

The European war found Tunisian agriculture in the midst of crisis, for the harvest of 1914 was an almost complete failure, and we may say that the work of the Protectorate consisted in preventing a famine among the population. A very recent enquiry undertaken on the spot by Mr. Charles Géniaux, well known for his interesting publications on Tunis, enables us to judge how far the effort of the Government has been successful.

In May, 1914, in order to make up for the failure of the harvest and come to the relief of the farmers, the Protectorate opened a first credit of 2,000,000 frs. for purchase of wheat for needy natives, 100,000 frs. for relief works and works of public utility and 200,000 frs. for loans to colonists. In the beginning of August the Government forbade the export of grain from the Regency and ordered the Director of Agriculture to obtain, if need were, by means of requisition, the food stuffs needed by the population.

A current account of supplies was then started. Purchases of grain for sowing to the value of 3,000,000 frs., corresponding with the net resources of the Mussulman thrift societies, were then made. The 5,000,000 frs. that were first spent seemed insufficient and, in view of the great and pressing need, other purchases were made and entered in the supplies account, from which they will gradually disappear as the credit or debit balance is entered into account of the native thrift societies or in that of the estimates.

Up to the present, according to M. Charles Géniaux, more than 100,000 quintals of barley and 100,000 quintals of maize have been purchased. At the rate of 250 grams per day per person, this will assure 400,000 Tunisians of the means of subsistence. New purchases will be made as soon as necessary, and nearly 7,000,000 frs. will be devoted to the purpose. The grain is distributed by the Finance Department for the account of the native thrift societies, as loans to be repaid. As the new harvest is good, these loans will be most of them repaid.

On the other hand, eight million francs worth of barley and wheat for sowing have been distributed among the Tunisians recognised as unable to obtain seeds without resorting to the usurers, who ask at least two sacks of wheat for each sack lent, that is 100 %, when they do not ask 250 %. The departure of 32,000 sharpshooters, nearly all farmers, favoured the designs of these speculators. The Finance Department induced the loan and thrift societies, founded in each *caïdat* in 1909, to take action. This was the easier as the excellent harvest of 1911 had permitted of the organization of long term mortgage loans, making it possible for the Tunisians to purchase modern implements and to work their farms.

Loans in money were granted for fifteen years at 8 %, the rate being reduced to 6 % when the holdings were registered. At once sales with right of redemption became rare ; the usurers suffered. A little later, the local credit societies were authorized to form co-operative societies, so as to extend the amount of their business. Village artisans could profit by these provisions, equally with the farmers, and the inhabitants of the Jerid and the Sahel hastened to ask for credit to revive their home weaving industry. Special co-operative societies were formed in regions suited to market gardening, such as Makhtar or suited to the improvement of Barbary sheep, such as Thala. These institutions not only improve the economic condition of the natives but increase the prestige of the Government and promote confidence and solidarity among the natives. The following extract from a letter sent by an important personage of the industrial region of Jerid, to the Director of the Economic Services, affords eloquent testimony of this :

" Thousands of natives of Jelas, Kairwan, the Hammama, the Fsachiches, and Madjeurs (regions that produced no grain in 1914) have come to the Jerid to implore their co-religionists to assist them in selling their dates in advance. The inhabitants of the Jerid had compassion and following the example of the Government, which is multiplying its efforts to relieve the poor, arranged for the sale of the dates on the most favourable terms, to be paid for at the next harvest, June, 1915. They have thus lent on honour to the amount of more than 20,000 sacks of dates. Each of the borrowers returned home, content to have assured his family of the means of subsistence. The inhabitants of the Jerid thus lent about 500,000 francs, when they might have received the greater part of this amount in money, if they had insisted on cash sales. But they were incited to act in this way by the desire to associate themselves in the work of assistance undertaken by the Government."

Let us add that the European war has favoured the local weaving industry in a singular degree. The Finance Department having assured M. Monge, Director of the Native Industrial and Commercial Experimental Laboratory, of the necessary credit, he addressed himself to the War Department, guaranteed regular delivery, the best quality and the saving France would make in applying directly to the producers. The natives obtained the commission. As a result nearly 500,000 frs. has circulated from hand to hand, from the peasant selling his wool and the spinners to the weavers and tailors. The Finance Department, which has assisted in reviving the native industries by extending to commerce and industry the right to borrow from the thrift societies, sanctions the formation of co-operative societies with special objects, such as the purchase in France of cotton for weaving or of indigo for dyeing. Besides this, the people of the Jerid obtain wool on conditions which will allow of continuous work during the war and even of fair profits.

The directly agricultural work of the Economic Services is quite as useful. The peasants of Tunis, says M. Charles Géniaux, observe that they only obtain fair crops when abundant rains fall on their fields, not

too well ploughed with their antique implements. Whilst their French and Italian neighbours every year reap a more or less abundant crop, the bedouins hardly obtain one satisfactory harvest in three.

Concerned at so serious a state of things, M. Bériel, Director of the Native Economic Services of the Regency, would like to facilitate for the farmers the purchase of the livestock and implements necessary for working their farms. Co-operative societies already facilitate for the natives the purchase of ploughs and livestock and enable them when necessary to build shelters for their flocks. But the Arabs, delivered from the usurers, are exposed to other dangers. Sometimes they buy improved implements which they cannot use and in the Bejaoua, for example, a few years ago, French ploughs might be seen abandoned in the furrows by the natives who had not draught animals strong enough to enable them to make good use of them and did not know how to keep and repair them. Such failures do more harm than if the attempts had not been made. It would be deplorable if the good intentions of the native should result in his loss. Just because he is making progress he must be advised and instructed at each step.

The war has not interrupted the agricultural work of the native services; quite the contrary. In August, 1914 an agricultural school was opened at Smindja for the sons of Mussulman landowners. A first group of twenty boarders are there receiving practical and theoretical instruction.

Again a larger number of tours have been made in the various agricultural centres. The agricultural officers or agents charged to instruct or enquire into the needs of rural districts arrive on mules, go to the places of public assembly, where, as there are no European chairs, they sit on mats and are soon surrounded by natives. When he has finished his instructive address, the agricultural engineer answers the questions put to him. In turn potatoes, ants, medicine, cattle foods, justice, etc. are discussed. As, unfortunately, such meetings cannot be held as often as they should, and in order that the profit from these may not be lost, the Economic Services Department edits a monthly bulletin in the spoken Arabic dialect, that the peasants may understand. In each number the labours of the season are treated as clearly as possible. The farmers receive this periodical gratis and this assures durable relations between them and the Tunis office.

In the future, M. Charles Géniaux tells us, the Economic Services would like to ensure the integrity of small native homesteads, which will be a difficult matter. The Arab has never been able to resist the attraction of a sum of money. He cannot see a "douro" glitter in the hand of a usurer without wanting to take it, offering as security his garden or his fields. The usurer lets years pass without claiming the excessive compound interest agreed to in the contract. Then, after having watched his debtor, he profits by a famine, as in 1914, when wheat and olives fail together, to demand imperiously the amount due. The debtor, who cannot pay, sees his holding sold, or, as happens at Cape Bon, he is left

the tenth or eleventh part of it and obliged to cultivate it while receiving only the tenth or eleventh part of the produce.

A first satisfactory attempt at establishing an undistrainable homestead was made at Sidi Buzid. Better still, it is desired to fix the nomads on the land, making them grants of about 18 hectares per family in regions where long ago Roman colonists successfully cultivated olive trees. In this way the immense olive gardens of "Ifrikia" would be reconstituted, and the wandering herdsmen would be civilized. They are now frightfully poor and seldom satisfy their hunger. Gradually the central and southern regions of Tunis, now at best serving for the migration of sheep providing their owners with a precarious livelihood, would recover their ancient fertility.

It must, besides, be recognised that the land systems of Tunis were very little suited to fix the farmers on the land. The Mussulman landowner only rents his land by the year, to the metayer, called *khammès*, that is to say, the *fifth*, because, as remuneration for his work, he has right only to the fifth part of the produce of the land. Under these uncertain conditions in regard to time and wages, the poor farmers cannot improve their methods of farming. They understand that additional effort on their part, which may give increased value to the holding, will be no profit to them, for the landlord can evict them the following year and let a new *khammès* benefit by the improved farm. The Economic Services Department is endeavouring to prolong the lease of state land and trying to obtain from the administration of *Habu* land leases somewhat similar to those in France. On the other hand, there is a way of enabling farmers of moderate wealth in Tunis, to obtain possession of the land: this is sale by "enzel." The purchaser pays the seller or his heirs a fixed rent and becomes proprietor of the holding without paying anything but an annuity. If possession in this way became more frequent, it would have the advantage of increasing the production of the country.

At Gamuda, part of a large state farm has been thus portioned out among natives who before had only a yearly tenancy. The administration has even been careful to defend the purchasers against their own improvidence by clauses making the lots transferred real homesteads and preventing the concessionnaires from being dispossessed by distraint or sale. In the north of the Regency, at Gubellat, it is desired to assign land to the Arabs in the neighbourhood of the colonists, so that they may provide the latter with permanent labourers. The immense domain of Enfida, in a very favourable district, will soon sell land by "enzel."

URUGUAY.

El. URUGUAY EN 1915. Boletín n. 3 Oficinas de Exposiciones (*Uruguay in 1915. Bulletin No. 3. Exhibition Office*). Montevideo. Printed by A. Barreiro y Ramos, 1915. 8vo., pp. 23⁸ with photogravures and diagrams. (In Spanish and English).

This is the 3rd. number of the publications of the Exhibition office of the Department of Industry, the object of which is to make the Uruguay better known abroad.

After a short historical notice of the country, the work under consideration gives interesting particulars in regard to its political, administrative, economic, military and judicial organization, as well as in regard to the work of each of the departments of State. However, the chief portion is devoted to an enquiry into the essential sources of the wealth of the country and especially into agriculture and stock-raising.

In regard to stock-raising, the most important of the industries of the country, we reproduce the following statistics. The number of head of cattle, which was in 1860 3,632,203, had increased in 1908, when the last cattle census was held, to 8,192,602. In the same period, the number of sheep had increased from 18,607,717 to 26,286,296. The amount of wool exported had increased from 1,521,659 quintals, valued at 32,371,744 gold pesos, in the five years' period 1884-1888, to 3,156,584 quintals of a value of 101,012,398 gold pesos in the period 1909-1913.

The meat industry has also greatly developed in the country, where there are now 13 *saladeros*, 7 preserved meat factories, and 2 refrigerating establishments. In the period 1908-1912 the exportation of livestock produce from Uruguay was valued at 197,555,653 gold pesos.

Although Uruguay is very fertile and its soil is almost everywhere adapted to various kinds of cultivation, agriculture has not yet made the same progress here as stock-raising. It must be noted that the average grain crop has been small, in certain years; however, according to the publication under notice, this is due to the cultivation being carried on "still in a rudimentary fashion, without good preparation of the soil, or selection of seeds, without manure, irrigation or other improvements of the land, which in certain regions, where they have been introduced have doubled the yield or increased it threefold." The wages of the agricultural labourers are shown in this book to be 15 pesos per month, while board and lodging is also given. The working day is generally eight hours.

The publication in question further furnishes interesting information in regard to the encouragement given by the State to immigration, with the object of colonising the country districts. In fact 282 immigrants entered the country in 1908, 1,355 in 1909, 2,455 in 1910, 2,375 in 1911, 3,305 in 1912, and 5,358 in 1913, settling in almost every part of the Republic.

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